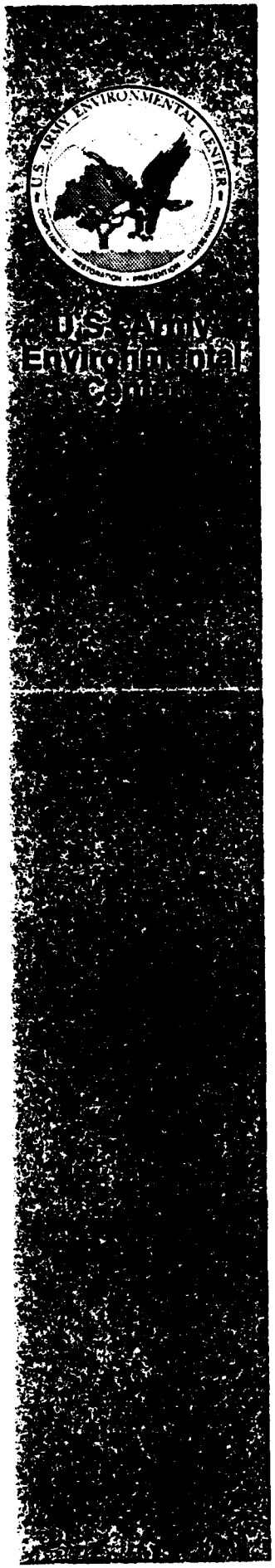

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ARMY RESERVE CENTER
PEWAUKEE, WISCONSIN

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The Army Reserve Center Pewaukee has been in operation since 1960. The facility is currently occupied by the 961st Engineering Battalion, a unit from the 86th Army ARCOM. Its mission is construction and approximately 145 people are assigned to the unit. Routine maintenance of vehicles associated with the construction is performed on-site. Major repairs, repainting of vehicles, and refueling and washing of vehicles are performed off-site. Records indicate that the potential sources of contamination include two heating oil USTs, which have subsequently been removed; one 400-gallon mobile storage tank and five 55-gallon drums containing waste oil, solvents, and water; and a paint storage room. Based on the information determined from the investigation it is concluded that there have been no releases to the groundwater, surface waters, soil or air from the site. Due to the low volume of wastes generated at the site and the control measures taken to prevent spills, potential contamination to groundwater, surface water, soil and air pathways from the site is low.

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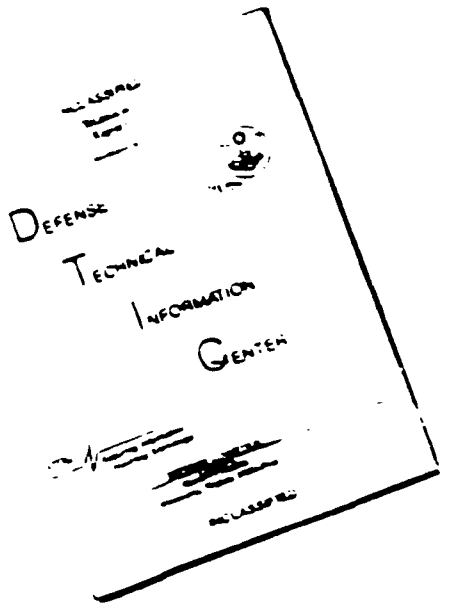

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LIST OF ABBREVIATIONS

ARCOM - Army Reserve Command

PA - Preliminary Assessment

RCRA - Resource and Conservation Recovery Act

USARC - United States Army Reserve Center

USARCP - United States Army Reserve Center Pewaukee

USTs - Underground Storage Tanks

1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), and Section 120 Federal Facilities, a Preliminary Assessment (PA) was conducted at the U.S. Army Reserve Center located in Pewaukee, Wisconsin. The purpose of the PA was to investigate and review conditions at the site to assess the threat posed to human health and the environment and provide the information necessary to reevaluate the facility's status on the Federal Facility Docket. PEER Consultants, P.C. was retained to perform the PA under Purchase Order (P.O.) No. DACA31-93-P-1658. The scope of the work included review of existing environmental documentation, perform a visual site inspection, and gather demographic information from the relevant state, county and local government records to satisfy the requirements in the Guidance for Performing Preliminary Assessments Under CERCLA, EPA/540/G-01/013, September 1991.

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

The U.S. Army Reserve Center Pewaukee (USARCP) is located at 619 West Wisconsin Avenue in the Village of Pewaukee, Waukesha County, Wisconsin. The USARCP is within a rural area of Waukesha County, approximately twenty miles west of Milwaukee (Figure 1). It is located in the Northwest (NW) ¼ of the Northeast (NE) ¼ of Section 8, Township 7 North, Range 19 East in Pewaukee Township, Waukesha County. The geographic coordinates for the site are 43° 05 18.5″ North latitude and 88° 16′ 25.9″ West longitude (Figure 2). A worksheet showing the calculations of the geographic coordinates is included in Appendix A.

The summer months, June, July, and August, in the Milwaukee area are generally mild and humid with normal temperatures ranging from a high of 78° F and a low of 59° F. The winter months, December, January, and February, are cold with normal temperatures ranging from a high of 29° F and a low of 15° F. The average total annual rainfall is approximately thirty-three (33) inches (Ref. 1).

2.2 SITE DESCRIPTION

The site is located on approximately 5 acres of federally owned land. The property is bounded by County Highway "KF" to the west, Wisconsin Avenue to the south, West Avenue to the east, and an open field to the north (Figure 3). The terrain is relatively flat, gently sloping downgradient to the southwest. Two buildings, which were constructed and occupied in 1960, are on the site. One is the 11,694 square foot (sf), one-story, brick, USARCP building and the other is a 2,251 sf, one-story, brick, vehicle maintenance shop. Approximately 100,000 sf of the property is paved for a driveway and parking. Approximately 84,000 sf of the property is landscaped

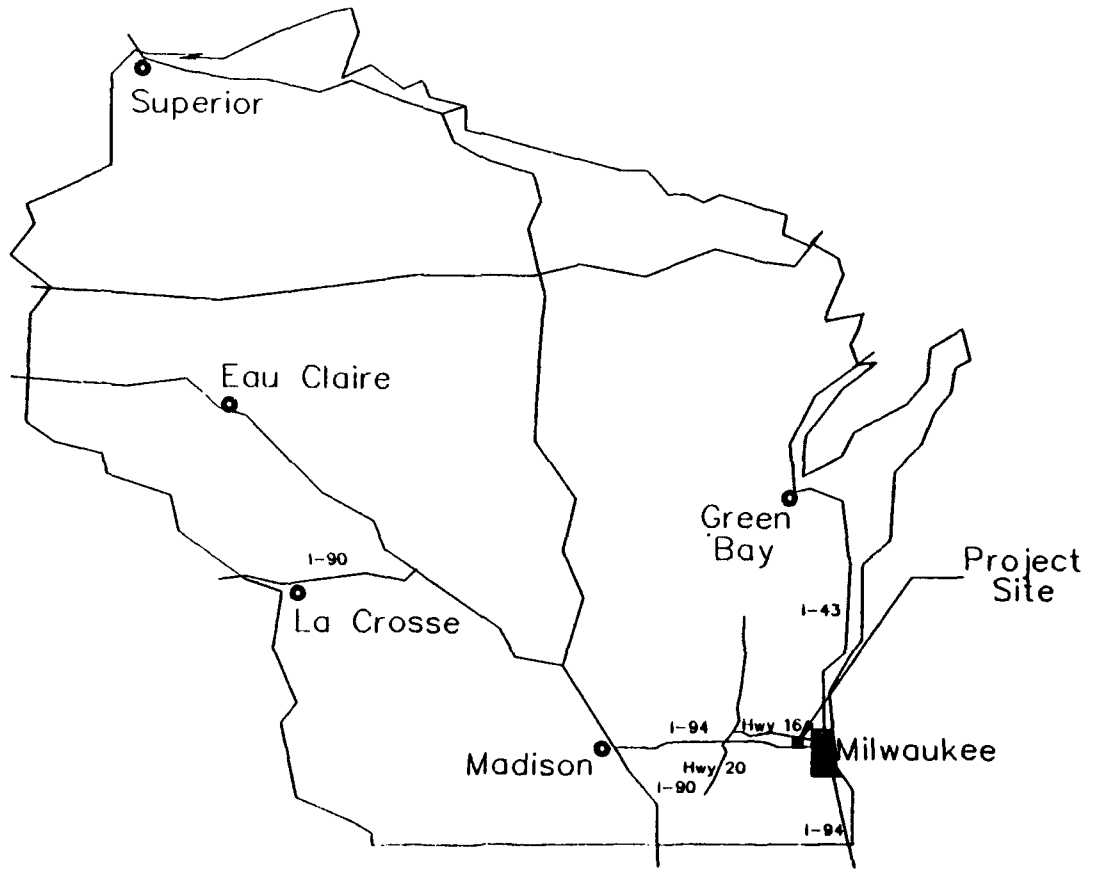
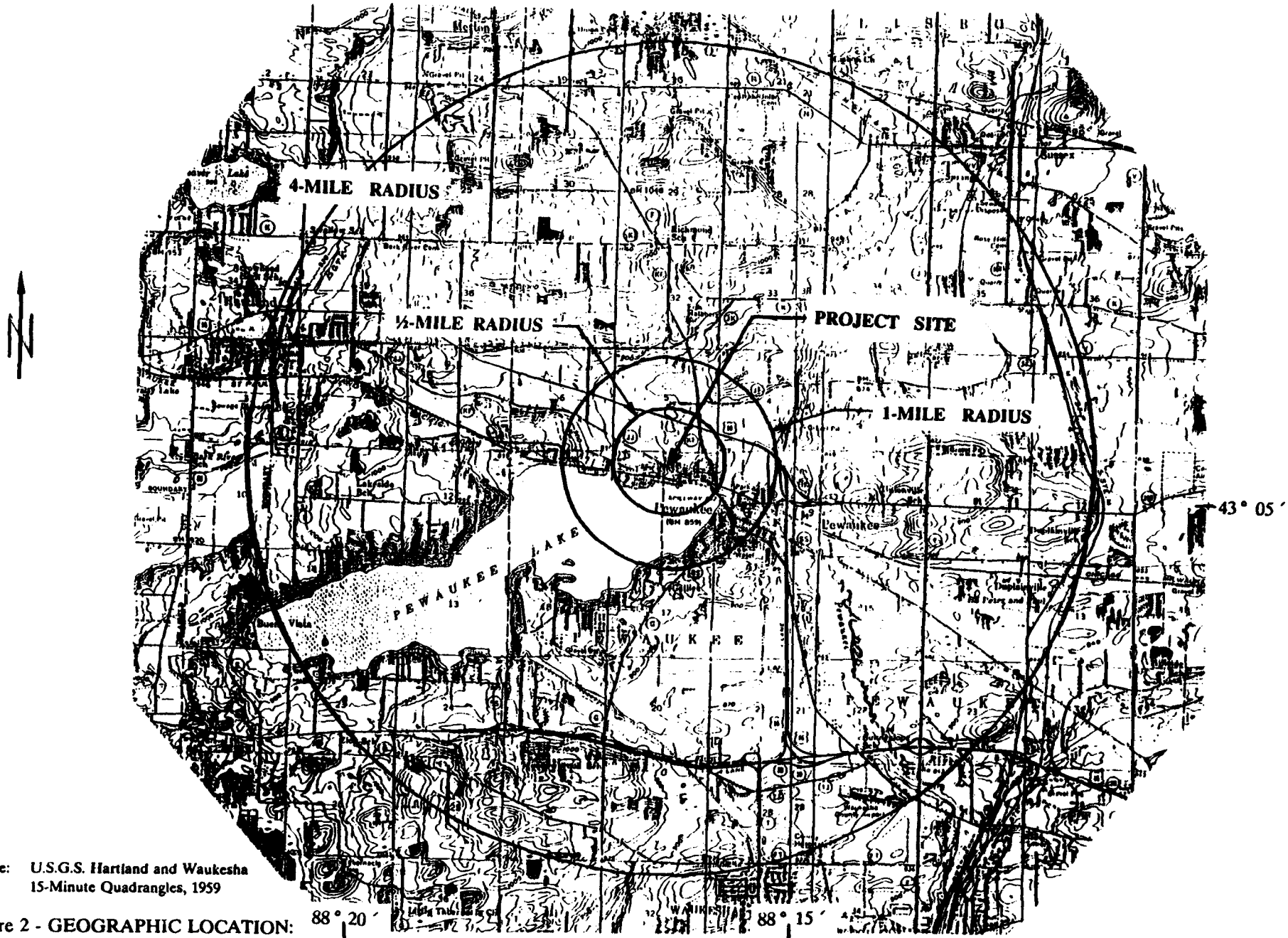


Figure 1

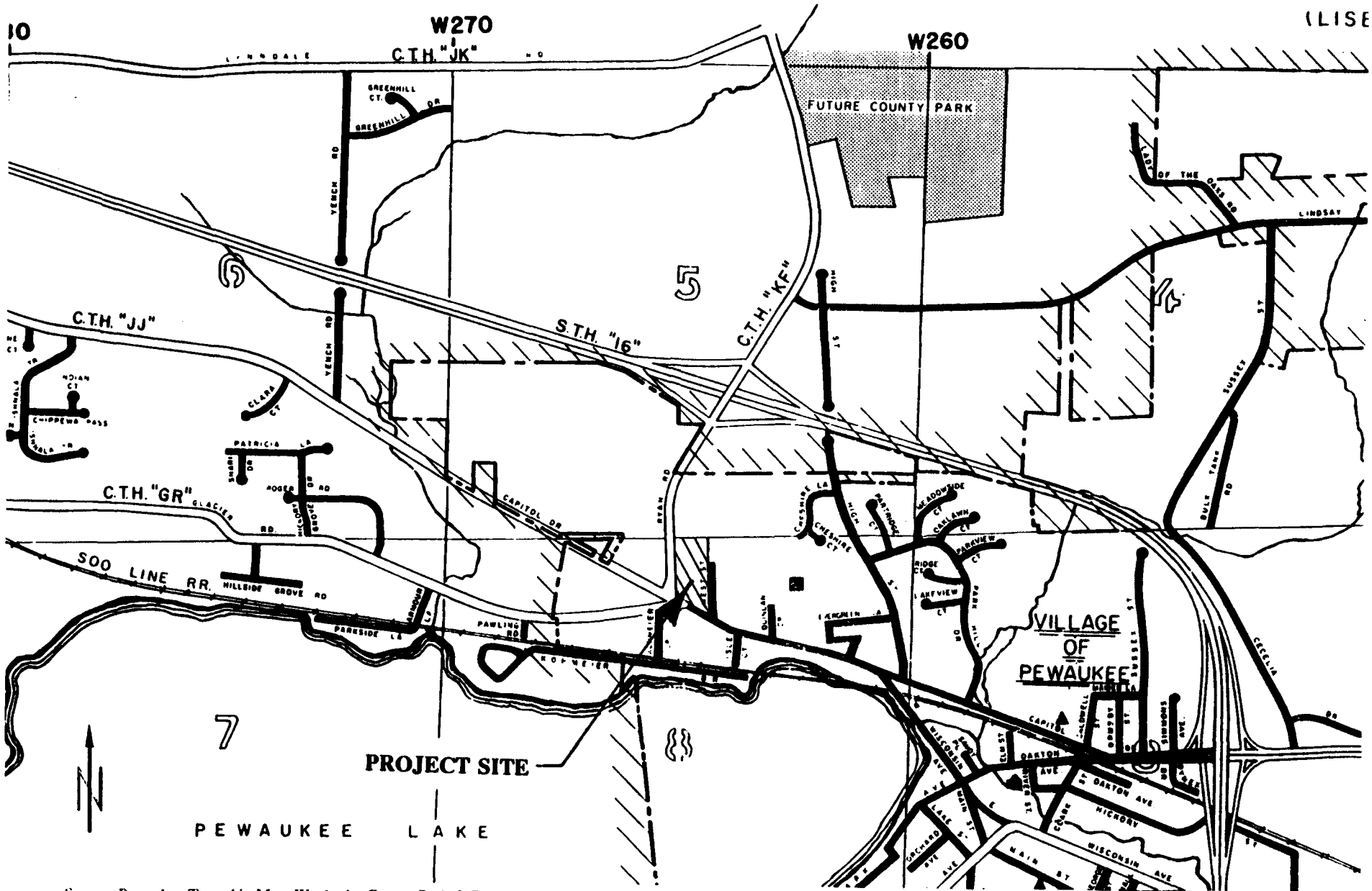
USARC Pewaukee
Pewaukee, WI
SITE LOCATION



Source: U.S.G.S. Hartland and Waukesha 15-Minute Quadrangles, 1959

Figure 2 - GEOGRAPHIC LOCATION: USARC Pewaukee, Wisconsin

No Scale



Source: Pewaukee Township Map, Waukesha County Park & Planning Commission; amended January 1990

Figure 3 - PROJECT SITE: USARC Pewaukee, Wisconsin No Scale

with grass, trees, bushes, and flowers. The remaining portions of the property consists of grassy areas which receive little or no maintenance. The property gently slopes downgradient toward an open drainage ditch which runs along the west property line. Visual observations indicate no staining, discoloration, or damage to vegetation at the site, except in the area north of the fence. The vegetation in this yarea has been physically damaged because the area is used as a practice area for the earth moving equipment.

According to discussions with the Facilities Manager at the project site, the property is connected to the local municipal water and sewer systems, which are operated and maintained by the Village of Pewaukee Water Utilities, electrical power is obtained from Wisconsin Electric Company, and trash is collected by Foyer Trash Collectors (Ref 2).

3.0 SITE ACTIVITY, HISTORY, AND WASTE CHARACTERIZATION

The Environmental Manager at the 86th U.S Army Reserve Command (ARCOM) in Forest Park, Illinois, the Environmental Manager from the 86th U.S. ARCOM at Fort McCoy in Wisconsin, and the Facilities Manager for the USARCP were interviewed to determine site activities and history.

3.1 PAST ON-SITE ACTIVITIES AND HISTORY

A unit of the 84th Division occupied the Center during the period of 1982 until 1993. Its mission was primarily to provide space for armored vehicle training units and military engineering units. A mission statement from a February 22, 1989 Annual Utilization Survey (Ref. 3) states that the USARCP is to:

- be utilized as primary mobilization site for tenant units;
- provide headquarters area, office space, storage facilities to tenant units;
- provide classroom space and learning center to tenant units;
- provide dining kitchen facilities to tenant units;
- provide space, storage area, and maintenance facility to tenant units in support of their organizational vehicles, equipment, and other authorized items in the Modification Table of Organization and Equipment, Common Table of Allowances, and Table of Distribution and Allowances (MTOE/CTA/TDA); and
- provide an emergency shelter or other utilization as directed by higher headquarters.

There were approximately 200 people in this unit. Large equipment such as backhoes, scrapers, and dump trucks used by the Division were stored on-site. Touch-up painting and routine maintenance and repairs of vehicles were performed on-site. All major repairs, repainting of vehicles, and refueling and washing of vehicles were performed at the Area Maintenance Support Activity 49 (AMSA 49) located at 5110 W. Silver Spring Drive, Milwaukee, Wisconsin. This facility is located approximately 25 miles east of the subject site, on the north side of Milwaukee, Wisconsin. The waste oils, antifreeze, and solvents generated on-site by the touch-up painting and routine maintenance and repairs were collected in 55-gallon drums and hauled from the site by a private hauler (Ref. 2).

The USARCP was originally classified as a large quantity generator of hazardous wastes, as defined by the Resource and Conservation Recovery Act (RCRA), Subtitle C. Its EPA Identification Number (ID #) is WI9210021953. In 1989, a request was made to change the hazardous waste generator status to "Very Small Quantity Generator". A "Very Small Quantity Generator" generates less than 100 kilograms or approximately 25 gallons of hazardous wastes in any one month period (Ref. 4). This change was granted by the Wisconsin Department of Natural Resources in January 1991. No annual reporting is required with this status. A copy of the notification granting the revision in hazardous waste generator status is in Appendix B.

According to a U.S. Army Toxic and Hazardous Materials Agency (USATHMA) Property report, dated March 1989, the facility had three potential sources of hazardous substances or waste sites. They were a 1,000-gallon, heating oil, underground storage tank (UST); a 6,000-gallon, heating-oil UST; and, a paint storage shed. The 1,000 gallon UST, which has subsequently been removed, was located near the northeast corner of the vehicle maintenance building. The 6,000-gallon UST, which has subsequently been removed, was located between the south wing and drill room of the USARCP building. The paint storage shed, which has subsequently been removed, was a small corrugated metal shed reportedly located near the northwest corner of the vehicle maintenance shop. In addition, waste oil and solvents were stored in a 55-gallon drum inside of the Vehicle Maintenance Shed. Figure 4 indicates the location of the past on-site waste locations: the USTs, paint storage shed, and drum storage area.

In 1986, the facility's heating system was converted from oil to natural gas (Ref. 2). A "Mail-Out Questionnaire Response Sheet", found in the files maintained by the facility, stated that the heating oil was removed from the USTs, except for a small amount to prevent the tanks from floating (Ref. 5). On October 28, 1991 the USTs were removed. An Underground Storage Tank Removal Documentation Report was prepared and submitted to the Wisconsin Department of Industry, Labor, and Human Relations. The report states that there was no evidence of contamination and that sample analysis results indicated that it was a clean closure site. A copy of the tank closure report is included in Appendix C. An interview with the a Village

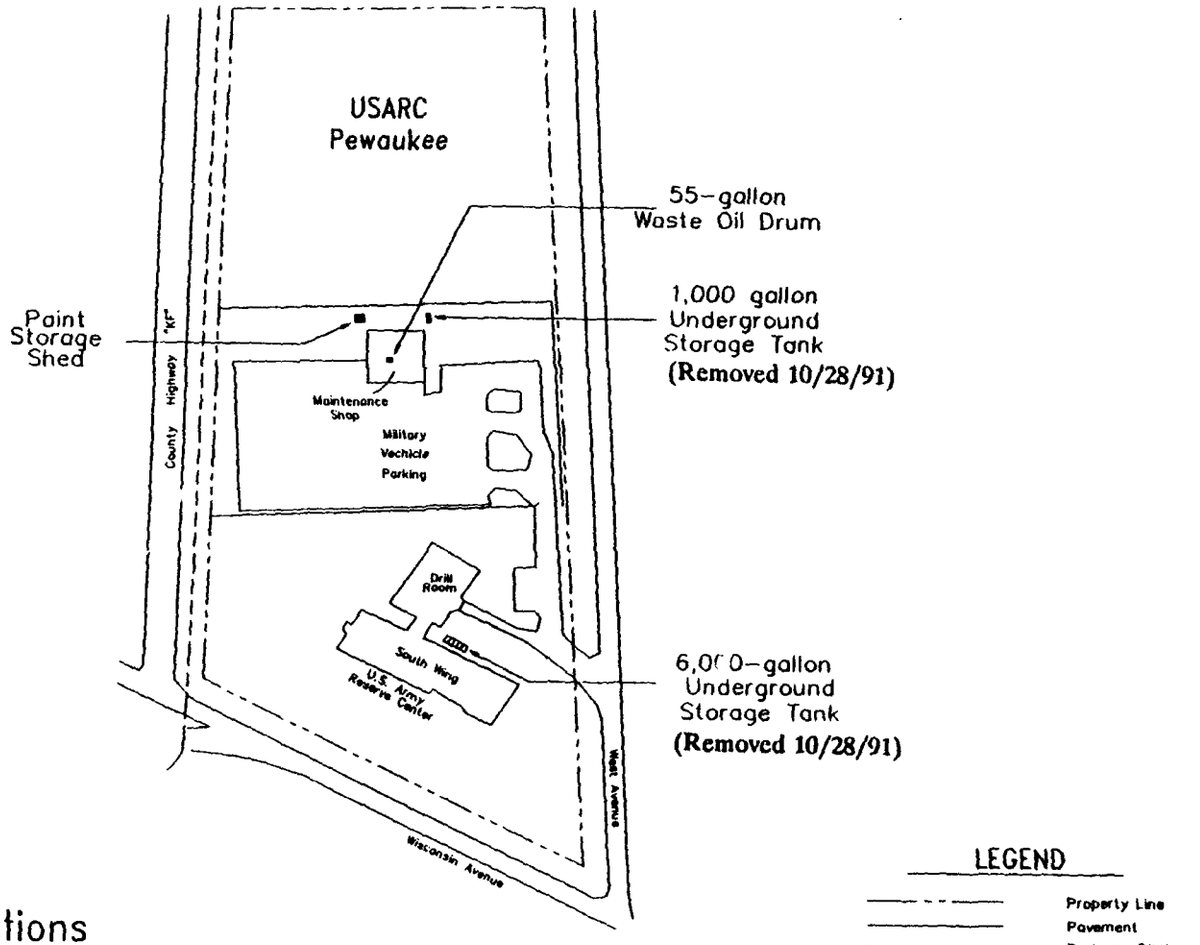


Figure 4

USARC Pewaukee

Pewaukee, WI

Past On-Site Waste Locations

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of Pewaukee Fire Inspector confirmed the findings of the report (Ref. 6).

3.2 PRESENT ON-SITE ACTIVITY

On April 1, 1993, the 84th Division moved out of the facility. The facility is presently occupied by the 961st Engineering Battalion, a unit from the 86th Army ARCOM. The mission for this unit is construction. Approximately 145 people are assigned to this unit. Five full-time employees and two part-time employees are on site. The unit maintains readiness by performing non-profit construction projects in the community. It has constructed items such as a soccer field in the Village of Pewaukee and a playground for the public schools. As before, only routine maintenance and repairs of construction vehicles are performed on-site. Used oil and antifreeze are generated and collected at the site. Solvents are used for cleaning of parts and equipment. Approximately 40 to 50 gallons of non-RCRA used oil is generated per month. The used oil is collected in a 55-gallon drum satellite accumulation point inside the Vehicle Maintenance Shop. Once the drum is full, the oil is subsequently pumped into a 400-gallon mobile above ground storage tank. The used oil, as well as used antifreeze and spent solvents, are collected and tested by Safety Kleen.

There are presently four potential sources of hazardous substances on-site: the paint storage room, the 55-gallon drum storage area inside of the vehicle maintenance building, the 100-gallon mobile storage tank, and the four 55-gallon drum storage area. The paint storage shed is located in the northeast corner of the Vehicle Maintenance Shop. The room is constructed of masonry block to the roof and is accessed from outside of the building. There also are four 55-gallon drums and a 400-gallon mobile storage tank on site. Samples of the contents of the drums and tank have been collected and are currently being analyzed by Safety Kleen. Preliminary results indicate that the drums contain a mixture of oil, solvents, antifreeze, and water; and that the mobile storage tank contains used oil and water. A temporary sand bag dike has been constructed around the drums and mobile tank for spill control. Rain protection has also been provided for the drums. The location of the paint storage room, 55-gallon drums and 400-gallon mobile storage tank are indicated on Figure 5. The Environmental Manager stated that a request had been submitted to Fort McCoy to sample the materials in the 55-gallon drums and 400-gallon mobile storage tank in order to determine the contents and appropriately dispose of them (Ref. 2). Photographs of the site, the 400-gallon mobile storage tank, and the four 55-gallon drums are included in Appendix G. The location and direction of the photos are indicated on Figure 5.

3.3 WASTE CHARACTERIZATION

The on-site waste source types can be described as drums, tanks, and storage room. The drums consist of the one 55-gallon drum, which contains used oil, located in the Vehicle Maintenance Shop; and four 55-gallon drums, containing a combination of

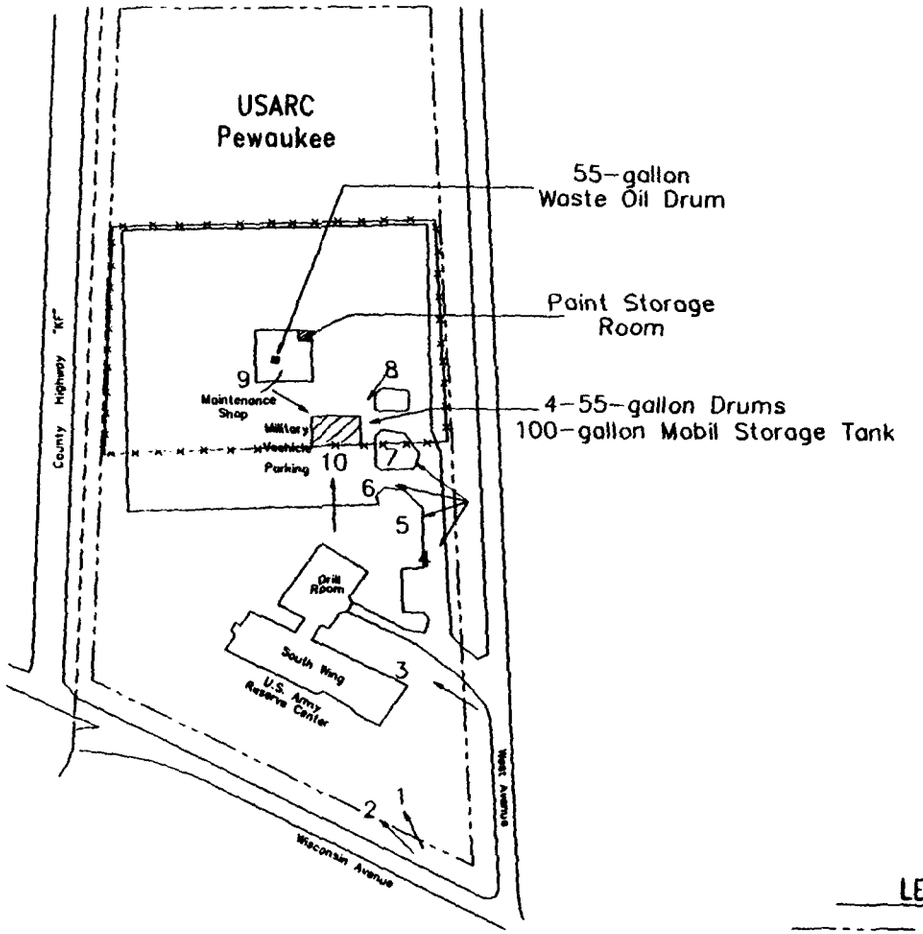


Figure 5

USARC Pewaukee
Pewaukee, WI
Present On-Site Waste
and Photo Locations

Scale
meters 0 80
feet 0 240

LEGEND

- Property Line
- Fence
- Drainage Ditch
- Pavement
- 1 Photo No. and Direction

zcm4.dwg

oil, solvents, antifreeze and water. The tanks consist of one 400-gallon mobile storage tank, containing used oil and water; and two No. 2 heating oil USTs, one 1,000-gallon and one 6,000-gallon. The two USTs were removed in 1992. The paint storage room contains paints, varnish, and corrosion preventative. These materials are stored in gallon and quart size containers; the quantity varies.

4.0 GROUNDWATER PATHWAY

4.1 HYDROGEOLOGIC SETTING

Waukesha County is located in the Central Lowland physiographic province. This area can be characterized as glaciated till covering bedrock which gently slopes downgradient westward toward the Mississippi River. The site is not located in a karst terrain (Ref 7).

There are three principal sources of ground water in Waukesha County. They are, in order of depth below ground level, the sand-and-gravel aquifer in the glacial drift, the Niagara aquifer, and the sandstone aquifer (Ref. 8). The sandstone aquifer, which consists primarily of rocks in the Galena-Platteville formations, St. Peter Sandstone, the Trempealeau formation, the Franconia, Galesville, Eau Claire, and Mount Simon Sandstones, ranges from approximately 700 feet to 2,300 feet in thickness. This aquifer is continuous throughout the county. The Niagara aquifer includes Silurian dolomite overlying Maquoketa shale. This aquifer, which is only in the eastern two-thirds of the county, ranges from approximately 0 feet to 300 feet in thickness. Water from this aquifer is used extensively for domestic, commercial, and small municipal or subdivision water supplies. The sand-and-gravel aquifer consists of sand and gravel deposits in the glacial drift. These deposits are found throughout the county and range in thickness of approximately 0 feet to 200 feet. Water from this aquifer is used mostly for domestic water supplies. Well Constructors Reports for wells constructed near the project site indicate that the geology in the area generally consists of, in order of depth, topsoil and/or clay, gravel, and limestone and/or shale. The static water level ranged from five feet to 115 feet below ground level. It has been reported that the groundwater flow in the vicinity of the lake is toward the lake except at the spillway (Ref 9). Groundwater flow at the spillway is to the northeast. In the case of the project site, the groundwater flow would be to the south.

4.2 GROUNDWATER TARGETS

Groundwater targets are drinking water supply wells located within four miles of the project site. Water supply wells within a 4-mile radius of the project site are used for drinking water, irrigation, and livestock. The drinking water supply wells consist of municipal water supply wells and individual private wells. According to the well constructors reports and interviews with local municipal water supply facilities, well depths range from 22 feet to 2,200 feet, resulting in water being drawn from all three

TABLE 1
GROUNDWATER TARGET POPULATION
WITHIN A 4-MILE RADIUS

MUNICIPALITY	MUNICIPAL WATER SYSTEM (Blended Systems)		APPROXIMATE NUMBER OF INDIVIDUAL PRIVATE WELLS
	NO. OF WELLS	TARGET POPULATION	
Town of Merton	---	---	6,600
Village of Merton	---	---	1,300
Town of Pewaukee	7	5,000	5,400
Village of Pewaukee	3	5,550	---
Village of Hartland	4	7,280	---
Village of Sussex	4	6,100	---

aquifers discussed in Section 4.1. Municipal water supplies with wells located in a 4-mile radius of the project site are operated by the Village of Pewaukee Water Utilities, the Town of Pewaukee Water Utility and Sanitary District, Village of Hartland Water Utilities, and the Village of Sussex Water and Sanitary District. These Utilities operate three to seven wells and each system is a blended system. None of these systems are in wellhead protection areas. The total population served by these utilities is approximately 23,930. There are also many private wells in a 4-mile radius of the project site. Based on population data, there are at least 13,300 people serviced with private wells. The groundwater target population for each municipality is presented in Table 1. Well Constructors Reports revealed at least thirty-nine wells located within ½-mile of the subject site (Ref. 10). The distance to the nearest drinking water well is approximately 500 feet southwest of the site. There have been no reports of foul-tasting or foul-smelling water in any nearby drinking water wells (Ref. 11 and Ref. 12).

4.3 GROUNDWATER CONCLUSIONS

Based on the site conditions, the analytical results in the UST closure report (Appendix D), and interviews with local officials, it has been determined that there have been no suspected releases of hazardous substances to the groundwater pathways. Due to the low volume of wastes generated at the site and the control measures taken to prevent spills, potential groundwater contamination from the site is low.

5.0 SURFACE WATER PATHWAY

5.1 HYDROLOGIC SETTING

At the project site, surface water flows either across the surface or through a subsurface drainage system to a drainage ditch along the west property line. The drainage ditch flows south approximately 1,000 feet to Pewaukee Lake. According to the Waukesha County floodplain map, the site is not located in a flood plain (Ref. 13). Pewaukee Lake covers approximately 2,446 acres and is approximately 4.5 miles in length. The drainage ditch along the site enters the lake approximately 3,000 feet from the lake's spillway. The lake discharges into the Pewaukee River which flows in a southeasterly direction approximately four miles to the Fox River. Figure 6 is a sketch of the surface water migration pathway.

5.2 SURFACE WATER TARGETS

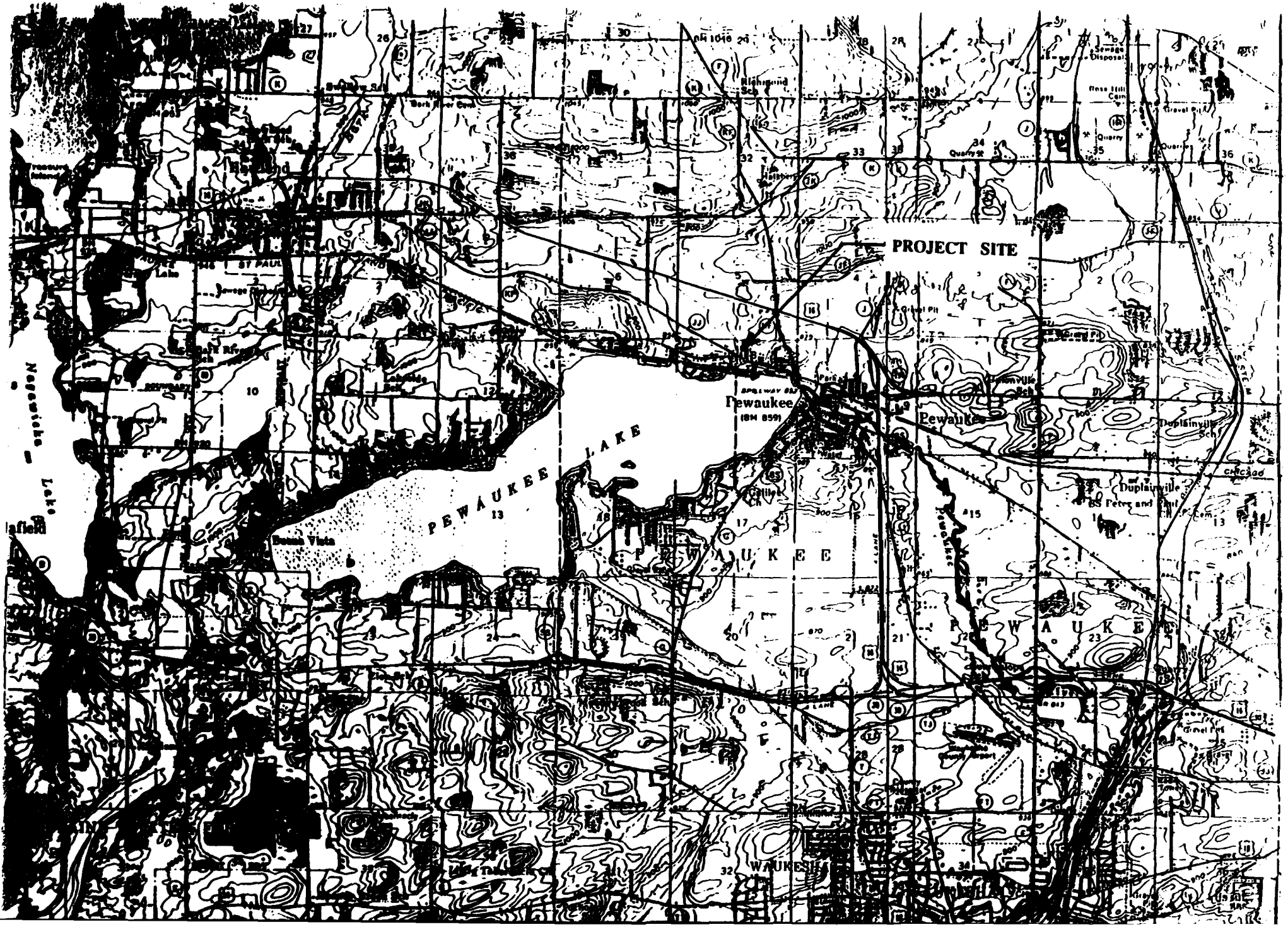
There are no drinking water intakes located within fifteen miles downstream of the project site. Residents within fifteen miles downstream of the project site are served by either municipal water supply systems from deep water wells, or by individual private wells.

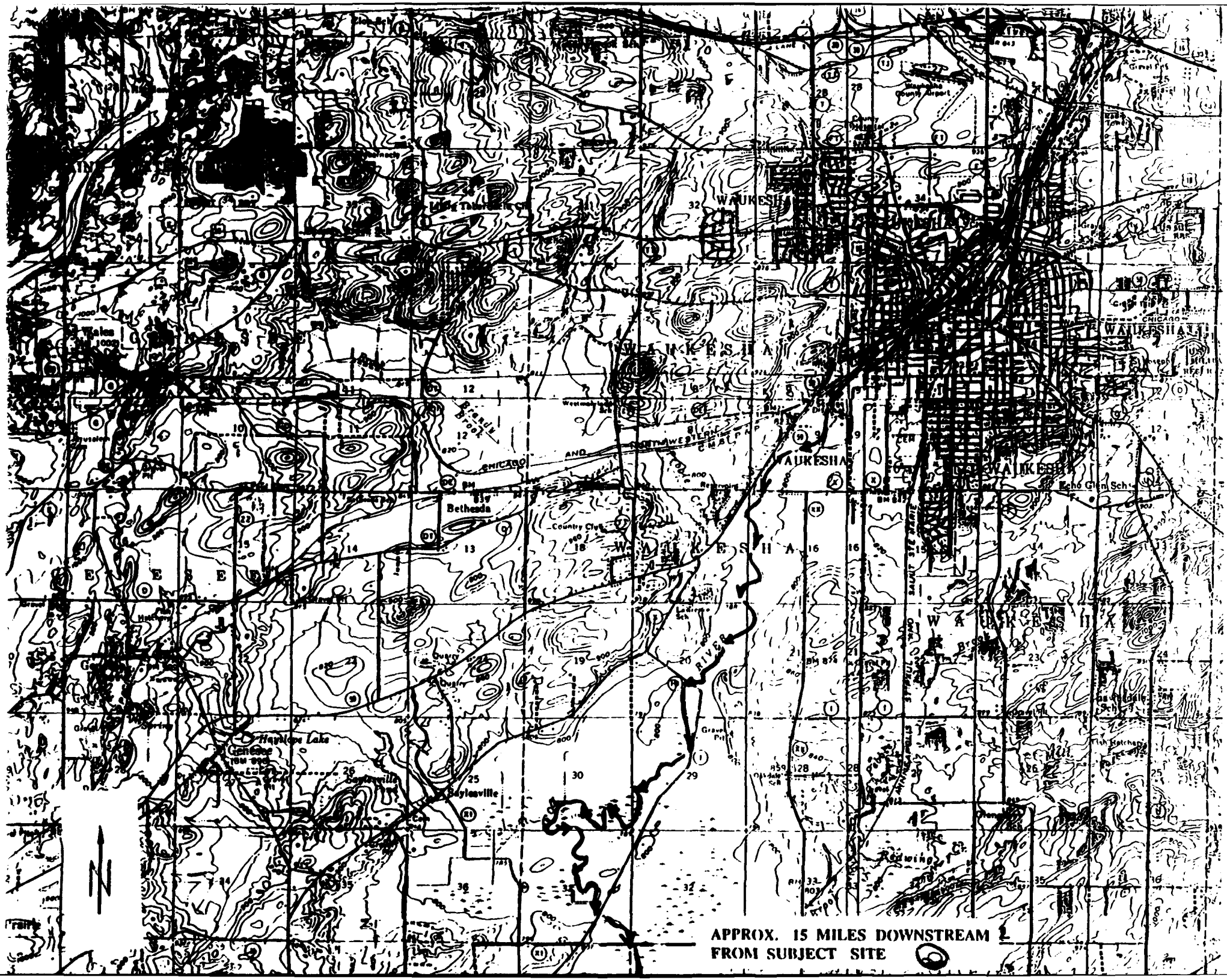
The Pewaukee Lake, Pewaukee River and the Fox River are used for recreational fishing. The typical species of fish found in Pewaukee Lake are bluegill, pumpkin seed, crapppie, rock bass, bullhead, white bass, northern pike, and white sucker. One threatened species of fish, the pugnose shiner, has been found in the Pewaukee Lake according to the Wisconsin Natural Heritage Working List (Ref. 14). Another species of fish, which has been listed as a State Special Concern Fish, the lake chubsucker, occurs in the Pewaukee Lake.

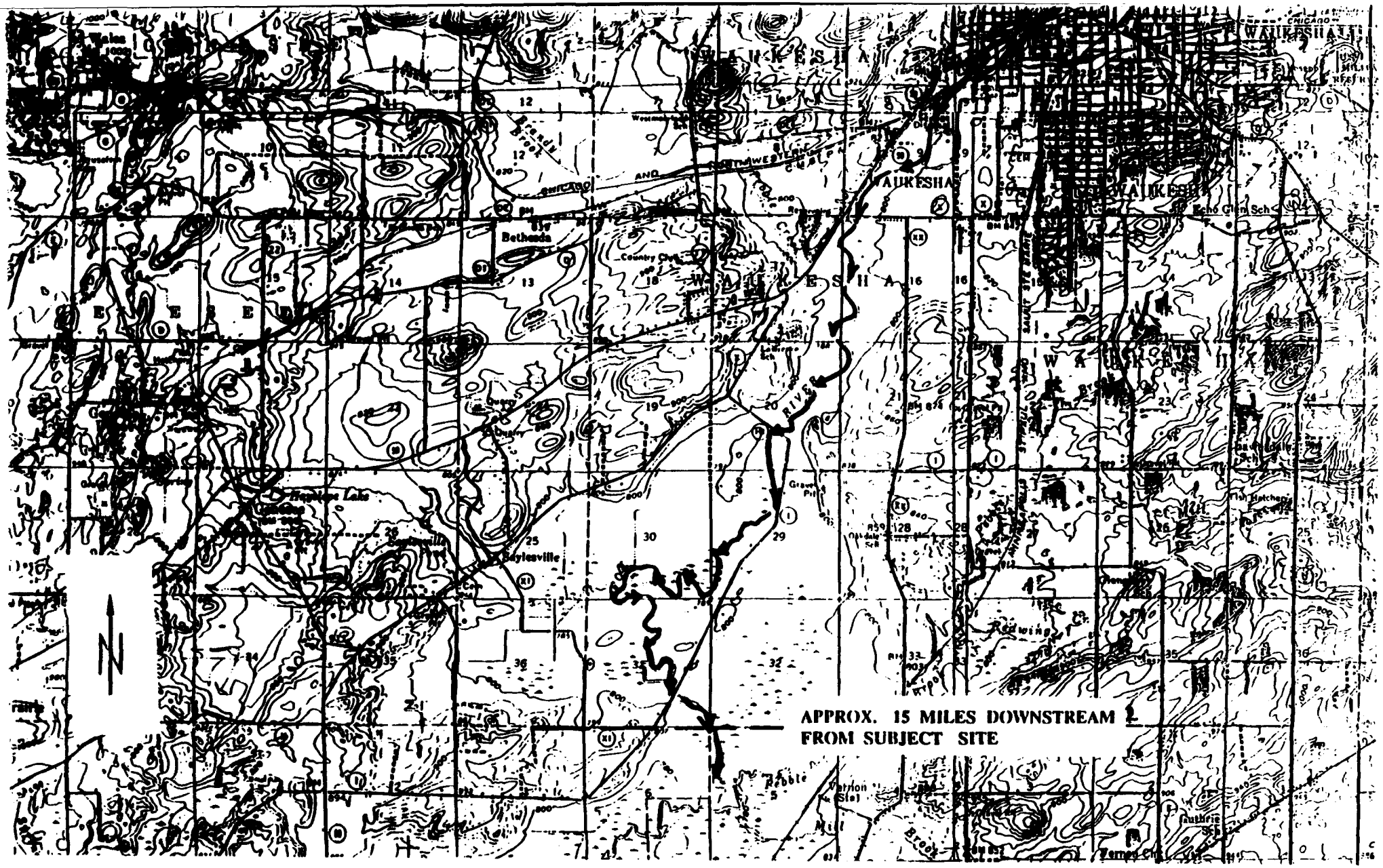
In addition, historical records (generally 25 years or older) indicate that a threatened plant species had been known to occur in the area. It is not known whether or not this species of plant still exists. A copy of the letter from the Wisconsin Department of Natural Resources providing the endangered resources information is included in Appendix H.

There are numerous wetland sites located within fifteen downstream miles of the project site (Ref. 15). The nearest wetland site is approximately 4,000 feet downstream. It is approximately five (5) acres in size and is classified as palustrine wet soil with needle-leaved deciduous shrubs by the Wisconsin Department of Natural Resources, Bureau of Planning.

The distance to the nearest surface water is Pewaukee Lake, located approximately 1,000 feet south of the site. The nearest fishery is Pewaukee Lake.


PROJECT SITE
PEWAUKEE LAKE
Pewaukee
Duplainville
Bonnie Vista
WAUKESHA


WAUKESHA
Bethesda
Country Club
Hapleton Lake
Bayleysville
Rolwing
APPROX. 15 MILES DOWNSTREAM
FROM SUBJECT SITE



Source: U.S.G.S Eagle (1960), Hales Corner (1959), Hartland (1959), and Waukesha (1959) 15-Minute Quadrangles

Figure 6 - SURFACE WATER MIGRATION PATHWAY USARC Pewaukee, Wisconsin No Scale

There has been no indication or report of contaminants to the surface waters from the site. The drainage ditch located to the west side of the property shows no signs of damaged vegetation, discoloration, or oil sheens. There are no drinking water intakes located within fifteen downstream miles. There are three human food chain targets located within fifteen downstream miles of the site. Human food chain targets are any surface water body from which fish or other water animals are taken or could be taken for human consumption. They are the Pewaukee Lake, the Pewaukee River, and the Fox River. The flow in the Pewaukee River is not monitored.

5.3 SURFACE WATER CONCLUSIONS

Based on the site conditions and interviews with local officials it has been determined that there have been no suspected releases of hazardous substances to the surface water pathways. Due to the low volume of wastes generated at the site and the control measures taken to prevent spills, potential surface water contamination from the site is low.

6.0 SOIL EXPOSURE AND AIR PATHWAY

6.1 PHYSICAL CONDITIONS

Approximately 55 percent of the property is impermeable (covered by buildings or pavement). The site is normally occupied during the day by five full-time employees and two part-time employees. As many as 150 personnel can be on-site when all personnel are called to duty. The site is open to the public. Public functions, such as elections, have been held at the site and the site has been designated as a public shelter in case of an emergency. The Facility Manager stated that there have been no reports or complaints of odors from the site and that no releases of hazardous substances to the air have been directly observed.

6.2 SOIL AND AIR TARGETS

Six private homes are located within 200 feet of the site. It is estimated that a total of twenty people live in these homes. There are no schools within 200 feet of the site. The nearest school is located approximately 1,000 feet east of the site. There is a playground adjacent to the property, to the east. The total population located within a 4-mile radius of the site, based on census data provided by the County of Waukesha, is approximately 37,200. There are no terrestrial sensitive environments, areas which contain threatened or endangered species, or wetland sites located within 200 feet of the site. The nearest wetland site is approximately five (5) acres and is located approximately 4,000 feet downstream along the Pewaukee River. The nearest fishery is the Pewaukee Lake which contains one threatened species of fish and one State Special Concern fish. No threatened or endangered wildlife have been identified within 200 feet of the site.

6.3 SOIL AND AIR CONCLUSIONS

Based on the site conditions and interviews with local officials it has been concluded that there have been no suspected releases of hazardous substances to soil and air pathways. Due to the low volume of wastes generated at the site and the control measures taken to prevent spills, potential contamination to soil and air pathways from the site is low.

7.0 OTHER ENVIRONMENTAL CONCERNS

7.1 RADON

The Environmental Manager stated that testing for radon had been performed on site. The results indicated the levels to be below the EPA limits of 4.0 piC/liter. (Ref. 2)

7.2 ASBESTOS

The Facilities Manager stated that limited asbestos sampling and analysis had been performed at the site. During the site inspection, suspect asbestos-containing materials were observed.

8.0 SUMMARY AND CONCLUSIONS

The Army Reserve Center Pewaukee has been in operation since 1960. Records indicate that the only potential sources of contamination include the two heating oil USTs, which have subsequently been removed, the 400-gallon mobile storage tank and the four 55-gallon drums of unknown contents, the paint storage room, and the waste oils and solvents generated from the routine maintenance activities. As stated in Section 3.1, the two USTs were removed in 1991. There was no evidence of leakage or contamination from the tanks when they were removed and they no longer pose any threat. The 400-gallon mobile storage tank and the four 55-gallon drums of unknown contents are stored in the parking lot. A sandbag dike has been constructed around the mobile storage tank and 55-gallon drums for spill control. Rain protection has been provided for the drums. The 400-gallon mobile storage tank and drums are scheduled for removal and disposal once their contents have been determined. There is no evidence of leakage or contamination from the 400-gallon mobile storage tank and 55-gallon drums. Based on the information determined from the investigation it is concluded that there have been no releases to the groundwater, surface waters, soil or air from the site. Due to the low volume of wastes generated at the site and the control measures taken to prevent spills, potential contamination to groundwater, surface water, soil and air pathways from the site is low.

REFERENCES

1. Chris Sackerson, National Weather Bureau, Milwaukee, Wisconsin; telephone conversation with Pamela Lemme of PEER Consultants; November 19, 1993. Re: Weather in the Milwaukee area (Telecon Note #21).

2. Mark Wisniewski, Facilities Manager; Colleen Reilly, Environmental Manager; Dave Jennings, Environmental Manager; Interview with John Tucker and Pamela Lemme of PEER Consultants, November 1, 1993. Re: Site history and activities (Interview Report #1).

3. "Annual Utilization Survey - USAR Real Estate", Authority - AR 405-70, February 22, 1989, Pg. 1.

4. Pat Brody, Wisconsin Department of Natural Resources, Bureau of Solid and Hazardous Waste Management, Telephone conversation with Pamela Lemme of PEER Consultants; November 23, 1993. Re: Hazardous Waste Generator Classifications (Telecon Note #22).

5. "Mail Out Questionnaire - Response Sheet", completed by Laura A. Sodemann, the previous facility manager, as part of the Environmental Compliance Assessment System. It is an internal report prepared by the 416th Engineering Command.

6. Charles Babe, Fire Inspector, Village of Pewaukee Fire Department; telephone conversation with Pamela Lemme of PEER Consultants, November 2, 1993. Re: UST removal and other environmental issues concerning site.

7. "Physiography of the United States", Charles B. Hunt, W.H. Freeman & Company, 1967, pg. 205.

8. "Ground-Water Resources of Waukesha County, Wisconsin", Joseph B. Gonthier, U.S. Geological Survey, 1975.

9. "A Water Quality Management Plan for Pewaukee Lake", Community Assistance Planning Report No. 58, Southeastern Wisconsin Regional Planning Commission, March 1984.

10. Well Constructors Reports, available for viewing at the Wisconsin Department of Natural Resources, dated 1936 to present (Document Review Report #2)

11. Ms. Carol Plant, Secretary of the District, Town of Pewaukee Water Utility and Sanitary District No. 3; telephone conversation with John Tucker of PEER Consultants, November 2, 1993 (Telecon Note #10).

12. Frank Edwinson, Public Health Sanitarian and George Morris, Manager, Waukesha

County Department of Environmental Resources; interview with John Tucker and Pamela Lemme of PEER Consultants, November 2, 1993. (Interview Reports #2 and #3)

13. "Floodland Information Report for the Pewaukee River, Village of Pewaukee, Waukesha County, Wisconsin", Community Assistance Planning Report No. 9 (2nd Edition), prepared by the Southern Wisconsin Regional Planning Commission, March 1985.

14. Wisconsin Natural Heritage Working List, Wisconsin Natural Heritage Program, Bureau of Endangered Resources, Department of Natural Resources, January 1993.

15. Wisconsin Wetlands Inventory Map for Township 7 North, Range 19 East, Waukesha County, Wisconsin; revised 4/84.

16. Waukesha Quadrangle, Wisconsin; 15-Minute Series; U.S. Geological Survey; 1959.

17. Hales Corner Quadrangle, Wisconsin; 15-Minute Series; U.S. Geological Survey; 1959.

18. Hartland Quadrangle, Wisconsin; 15-Minute Series; U.S. Geological Survey; 1959.

19. Eagle Quadrangle, Wisconsin; 15-Minute Series; U.S. Geological Survey; 1960.

20. Waukesha Quadrangle, Wisconsin; 7.5-Minute Series; U.S. Geological Survey; Photorevised 1971; Photoinspected 1976.

21. Hartland Quadrangle, Wisconsin; 7.5-Minute Series; U.S. Geological Survey; Photorevised 1971 and 1976.

22. Sussex Quadrangle, Wisconsin; 7.5-Minute Series; U.S. Geological Survey; Photorevised 1971; Photoinspected 1976.

23. Merton Quadrangle, Wisconsin; 7.5-Minute Series; U.S. Geological Survey; Photorevised 1971; Photorevised 1976.

APPENDIX A

GEOGRAPHIC COORDINATES WORKSHEET

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2
LI USING ENGINEER'S SCALE (1/60)

SITE NAME: U.S. Army Reserve Center Pewaukee CERCLIS #: _____

AKA: _____ SSID: _____

ADDRESS: 619 West Wisconsin Avenue

CITY: Pewaukee STATE: Wisconsin ZIP CODE: 53072-2497

SITE REFERENCE POINT: Center of site

USGS QUAD MAP NAME: Hartland, WI TOWNSHIP: 7 (N)/S RANGE: 19 (E)/W

SCALE: (1:24,000) MAP DATE: 1959 SECTION: ____1/4 ____1/4 ____1/4
Photo Revised 1971 and 1976

MAP DATUM: 1927 1983 (CIRCLE ONE) MERIDIAN: _____

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy):

LONGITUDE: 88 ° 15 ' ___ " LATITUDE: 43 ° 00 ' ___ "

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 88° ° 15 ' ___ " LATITUDE: 43 ° 05 ' ___ "

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRID LINE TO SITE REF POINT: 56

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A x 0.3304 = 18 . 5 "

C) EXPRESS IN MINUTES AND SECONDS (1'= 60"): 0 ' 18 . 5 "

D) ADD TO STARTING LATITUDE: 43 ° 05 ' 00 . 0 " + 0 ' 18 . 5" =

SITE LATITUDE: 43 ° 05 ' 18 . 5 "

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 260

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A x 0.3304 = 85 . 9 "

C) EXPRESS IN MINUTES AND SECONDS (1'= 60"): 1 ' 25 . 9 "

D) ADD TO STARTING LONGITUDE: 88 ° 15 ' 00 . 0 " + 1 ' 25 . 9 "

SITE LONGITUDE: 88 ° 16 ' 25 . 9 "

INVESTIGATOR: _____ DATE: 1/7/94

APPENDIX B

HAZARDOUS WASTE GENERATOR STATUS

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

BOX 7921
MADISON, WI 53707

January 1991

FILE REF: 4430

WI9210021953 2 68 268246770
ATTN: LAURA A SODEMANN-FAC MGR
US ARMY RESERVE CTR
619 W WISCONSIN AVE
PEWAUKEE, WI 53072

Dear Facility Owner/Operator or Hazardous Waste Generator:

When you submitted your 1989 Hazardous Waste Report you indicated on Form IC that a change in hazardous waste generator status was appropriate for your facility. At that time (Feb. 1990), our records showed your status WAS the following:

EPA ID#:	Location: 619 W WISCONSIN AVE	LARGE QNTY GENERATOR
WI9210021953	PEWAUKEE, WI 53072	

On your report you indicated that the generator category for your site SHOULD be:

VERY SMALL QUANTITY GENERATOR

An audit of your facility records has been completed which included a file check for pending violations, a manifest activity review for the last two years, and a review of annual hazardous waste activity reports that have been filed with the DNR. You may have been contacted during this review for additional information. As a result of this audit, we concluded that the appropriate hazardous waste generator status for your facility IS:

VERY SMALL QNTY GENERATOR with NO ANNUAL REPORTING REQUIRED

If our records show that no annual reporting is required for your facility, you will NOT be sent materials for 1990 reporting. However, should your hazardous waste activities change, you may be required to submit a report in the future. You are responsible for keeping track of your hazardous waste activities, determining if reporting is required, and requesting reporting materials from the DNR if you need to submit a report for your site.

I am enclosing an information sheet for your reference in hazardous waste matters. One side shows the generation and accumulation amounts for each of the generator categories. The other side lists the hazardous waste activities for which annual reporting is required. If you have questions about the audit decision for your site, the waste regulations, the requirements for reporting, or questions specific to the activities at your site, please contact:

Wyvetta Davis (414)263-8668 DNR Southeast District

If you have questions about the DNR procedures for hazardous waste status audits, please call me at (608)266-2414. Thanks.

Aggie Cook, Information Technician
Program Services Section
Bureau of Solid & Hazardous Waste Mgmt

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
RCRA ACTIVITIES
P.O. BOX A3587
CHICAGO, ILLINOIS 60690

MAR 15 1989

Dear Notifier:

Enclosed you will find the U.S. Environmental Protection Agency (U.S. EPA) Identification (ID) number that has been assigned to your installation. This ID number must appear on all manifest forms when transporting hazardous waste. You will find your ID numbber on the second line of the copy of the enclosed notification form. This letter confirms that you have filed a Notification of Hazardous Waste Activity (Form 8700-12) to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). This letter and the enclosed copy of the notification form should be retained for future use.

If your facility is in the state of Michigan and you were previously issued and ID number with an MIG prefix, do not use the MIG number. This is a state number. Be sure to use the MID number only.

If you have any further questions regarding hazardous waste activity, please contact our Hotline at (312) 886-4001.

Sincerely yours,

Art Kawatachi, Chief
Information Section
RCRA Program Management Branch

APPENDIX C

UST CLOSURE REPORT

DEPARTMENT OF THE ARMY
HEADQUARTERS, FORT McCOY
OFFICE OF THE COMMANDER
SPARTA, WISCONSIN 54656

29 JAN 1992

REPLY TO ATTENTION OF

Environmental Management Division

Mr. William Morrissey
Safety and Buildings Division
Department of Industry, Labor and Human Relations
201 E. Washington Avenue
Madison, Wisconsin 53707

Dear Mr. Morrissey:

Enclosed are Underground Petroleum Product Tank Inventory Forms and Underground Storage Tank Removal Documentation Reports for tank removals at Army Reserve Centers in Pewaukee and Kewaunee, Wisconsin (Enclosures 1 and 2).

One 1,000 gallon and a 6,000 gallon fuel oil tank were removed at Pewaukee. A 1,000 gallon fuel oil tank was removed at Kewaunee. All soil samples results were less than 10 parts per million total petroleum hydrocarbons, thus all three removals were clean closures.

Please contact Mr. Kurt Brownell, Environmental Management Division, Directorate of Engineering, at (608) 388-2160 if you have any questions.

Sincerely,

ORIGINAL SIGNED
William S. Stanley
Colonel, U.S. Army
Commanding

Enclosures

Copies Furnished:

Mr. Terry Bauer, District 4, 2715 Post Road, Stevens Point, WI 54481
Chief, Off-Post Facilities Division

Wisconsin Department of Industry, Labor and Human Relations

UNDERGROUND PETROLEUM PRODUCT TANK INVENTORY

Send Completed Form To:
Safety & Buildings Division
P.O. Box 7969
Madison, WI 53707
Telephone (608) 267-5280

For Office Use Only:
Tank ID #

This form is to be completed pursuant to Section 101.142, Wis. Stats., to register all underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances. Please see the reverse side for additional information on this program. An underground storage tank is defined as any tank with at least 10 percent of its total volume (included piping) located below ground level. A separate form is needed for each tank. Send each completed form to the agency designated in the top right corner.

This registration applies to a tank that is (check one):
1. ☐ In Use
2. ☐ Abandoned With Product
3. ☐ Abandoned No Product (empty) or With Water
4. ☒ Abandoned - Tank Removed
6. ☐ Abandoned - Filled With Inert Material
7. ☐ Out of Service
8. ☐ Changed Ownership (Indicate new owner in section A. 4. below)

Fire Department Providing Fire Coverage Where Tank is Located is in:
☒ City ☐ Village ☐ Town of: Pewaukee

A. IDENTIFICATION: (Please Print)

1. Installation Name: U.S. Army Reserve Center
2. Mailing Name if Different Than #1:
Installation Street Address: 619 West Wisconsin Ave.
Mailing Address if Different Than #1:
☒ City Pewaukee ☐ Village ☐ Town of:
☐ City ☐ Village ☐ Town of:
State: WI | Zip Code: 53072-2497 | County: Waukesha
State: | Zip Code: | County:
3. Name of Contact Person: Kurt Brownell
4. Owner Name if Different Than #3:
Street Address: HQ, Fort McCoy, ATTN: AFZR-DE-E
Street Address:
☒ City ☐ Town ☐ Village of: Sparta | State: WI | Zip Code: 54656-5000
☐ City ☐ Town ☐ Village of: | State: | Zip Code:
County: Monroe | Telephone No. (include area code): (608) 388-2160
County: | Telephone No. (include area code):
5. Tank Age (date installed, if known; or years old): 1959
6. Tank Capacity (gallons): 6,000
7. Tank Manufacturer's Name (if known): unknown

B. TYPE OF USER (check one):

1. ☐ Gas Station
2. ☐ Bulk Storage
3. ☐ Utility
4. ☐ Mercantile
5. ☐ Industrial
6. ☒ Government
7. ☐ School
8. ☐ Residential
9. ☐ Agricultural
10. ☐ Other (specify): _____

C. TANK CONSTRUCTION:

1. ☒ Bare Steel
2. ☐ Cathodically Protected and Coated Steel (a. ☐ Sacrificial Anodes or b. ☐ Impressed Current)
3. ☐ Coated Steel
4. ☐ Fiberglass
5. ☐ Other (specify): _____
6. ☐ Relined
7. ☐ Steel - Fiberglass Reinforced Plastic Composite
9. ☐ Unknown

Approval: 1. ☐ Nat'l Std. 2. ☐ UL 3. ☐ Other:
Is Tank Double Walled? ☐ Yes ☒ No
Overfill Protection Provided? ☐ Yes ☒ No If yes, identify type:
Spill Containment? ☐ Yes ☒ No

Tank leak detection method: 1. ☐ Automatic tank gauging 2. ☐ Vapor monitoring 3. ☐ Groundwater monitoring 4. ☐ Inventory control and tightness testing 5. ☐ Interstitial monitoring 6. ☒ Not required at present

D. PIPING CONSTRUCTION

1. ☒ Bare Steel 2. ☐ Cathodically Protected and Coated or Wrapped Steel (a. ☐ Sacrificial Anodes or b. ☐ Impressed Current) 3. ☐ Coated Steel 4. ☐ Fiberglass 5. ☐ Other (specify): _____ 9. ☐ Unknown

Piping System Type: 1. ☐ Pressurized piping with: a. ☐ auto shutoff; b. ☐ alarm; or c. ☐ flow restrictor 2. ☐ Suction piping with check valve at tank 3. ☒ Suction piping with check valve at pump and inspectable

Piping leak detection method: used if pressurized or check valve at tank: 1. ☐ Vapor monitoring 2. ☐ Interstitial monitoring 3. ☐ Groundwater monitoring 4. ☐ Tightness testing 5. ☐ Line Leak Detector 6. ☒ Not Required

Approval: 1. ☐ Nat'l Std 2. ☐ UL 3. ☐ Other:
Double Walled: ☐ Yes ☒ No

E. TANK CONTENTS

1. ☐ Diesel
2. ☐ Leaded
3. ☐ Unleaded
4. ☒ Fuel Oil
5. ☐ Gasohol
6. ☐ Other
7. ☐ Empty
8. ☐ Sand/Gravel/Slurry
9. ☐ Unknown
10. ☐ Premix
11. ☐ Waste Oil
12. ☐ Propane
13. ☐ Chemical * _____ _____ _____
14. ☐ Kerosene
15. ☐ Aviation

* If # 13 is checked, indicate the chemical name(s) or number(s) of the chemical or waste.

If Tank Abandoned, Give Date (mo/day/yr): Removed 30 October 1991
Has a site assessment been completed? (see reverse side for details) ☒ Yes ☐ No

If installation of a new tank is being reported, indicate who performed the installation inspection:
1. ☐ Fire Department 2. ☐ OILHR 3. ☐ Other (identify) _____

Signature of Person Completing Report: Kurt Brownell CE
Date Signed: 20 Dec 1991

SBD-7437 (R. 09/89)

MC CUTCHIN CRANE SERVICE
727 West Chapel Street
Dodgeville, Wisconsin 53533
(608) 935-9411 Telephone
(608) 935-9645 Facimille

****

UNDERGROUND STORAGE TANK REMOVAL DOCUMENTATION REPORT

Site: US Army Reserve Center
619 West Wisconsin Ave
Pewaukee, Wisconsin 53072-2497
Waukesha County

Prepared For: US Dept of Army
Directorate of Contracting
Building 2103
Fort McCoy, Wisconsin 54656-5000

****

Mary E. Lydic 11-26-91

McCutchin Crane Service Date

TABLE OF CONTENTS

Page:

1. INTRODUCTION & BACKGROUND..... 1.
2. TANK REMOVAL ACTIVITIES..... 1.
3. VISUAL OBSERVATIONS..... 2.
4. SOIL SAMPLE COLLECTION & RESULTS..... 2.
5. CLOSING DISCUSSION..... 2.

Enclosures With Report:

Site Location Map..... A.
Chain of Custody For Soil Samples..... B.
Soil Analysis Results From Laboratory..... C.
Site Worksheets.....D1-D3
Checklist For Underground Tank Closure Form#SBD-8951
Underground Tank Inventory Form# SBD-7437 For Each Tank
Manifest For Disposal Of Tanks..... E.

1. INTRODUCTION & BACKGROUND

This report is for documentation of underground tank removals performed on 10-29-91 at the USARC, 619 West Wisconsin Ave, Pewaukee, Wisconsin, Waukesha County.

The owner of this site is the US Dept Of Army, Fort McCoy, Wisconsin. Directorate of Contracting who was responsible for overseeing this project is Bernie L Honish who may be reached by calling 608 388-2924, or by writing to the US Dept of Army, Directorate of Contracting, Bldg 2103, Room 2, Fort McCoy, Wisconsin 54656-5000.

The tanks which were removed were one 6,000 gallon heating fuel tank and one 1,000 gallon heating fuel tank.

The Dept of Army requested bid proposals on this work to be performed according to all State & Federal Regulations concerning removals & closures of underground tanks.

McCutchin Crane Service of Dodgeville was awarded the bid & authorized to perform the removals. McCutchin provided their own backhoe for the excavation.

The Dept of Army had a Contracting Officer Representative whose name was Officer Irv Capaul on site while all work was being performed.

2. TANK REMOVAL ACTIVITIES

McCutchin Crane Service, Officer Irv Capaul, and Inspector Charles Babe from the Pewaukee Fire Dept arrived on site to remove the tanks on Oct 28th, 1991. Diggers Hotline had been notified & requested to mark all lines, but because of inclimate weather had not done so yet as of Monday, Oct 28th. Diggers Hotline arrived on Tuesday Oct 29th.
Before work began all safety precautions were in place. Only air run equipment is used on tank removal jobs, and all work is performed in accordance with OSHA Safety Standards.

Before removal all product was drained from the piping into the tanks. The piping was then disconnected, from the tank, capped & removed, except for one pipe going into the furnace room from the 6,000 gallon tank, which we were unable to remove, was drained, and capped.
Once all product was drained into the tanks the liquid contents were pumped out (1,200 gallons of fuel oil from the 6,000 gal tank & 30 gal fuel oil from the 1,000 gal tank), & hauled away by McCutchin.
The tank was then purged with liquid CO2, opened & cleaned.A total of 3 gallon of fuel oil sludge was cleaned from the tanks.

The tanks were removed from the hole, labeled, and loaded onto McCutchins trailer to be hauled away & disposed of.

Once the site assessment evaluation was complete & collection of soil samples were gathered the sites were filled in with clean native fill material and the site restored to grade.

3. VISUAL OBSERVATIONS

Before removal of the tanks began visual observations were made for evidence of the undgeround tanks having a system failure. We were looking for such things as dead vegetation, staining, saturated soils etc. There was no evidence of any dead vegetation, nor was any staining on the ground evident.

The tanks were located in two different areas so there were 2 excavation holes. The excavation at the 6,000 gallon tank measured 14'x 37'x 10'deep. The tank in this excavation measured 6' x 30'

The excavation at the 1,000 gallon tank measured 8' x 10' x 8' deep. The tank in this excavation measured 5'4" x 6'.

The soil types encountered were of sand & clay mixture. There were no visual observations showing contamination, no staining of the soils, no free product in the excavation holes , no significant smell, etc.

The inspection of the tanks did not show any failure. There were no holes,cracks, or deep corrosion which could have caused leakage. All fittings & connections on the tank were secure.

4. SOIL SAMPLE COLLECTION AND RESULTS

Once the tank was out of the hole & the visual site evaluation complete soil samples were gathered under each end of the 6,000 gallon tank, under 2 areas of the piping run from that tank to where the piping entered the building, and one sample was taken under the center of the 1,000 gallon tank.

The samples were gathered with a clean hand trowel and placed into 4oz jars provided to us by our laboratory. These jars have ID information on them pertaining to the site and are kept with a chain of custody until delivery to the laboratory. The laboratory analyized the samples for TPH,and all results returned at no action limits at under 10PPM.

5. CLOSING DISCUSSION

Based on all visual inspections of the tanks, excavation hole, and results of the soil analysis, it is our opinion that this should be a clean closure site.

ATTACHMENT 1-2

USARC
PEWAUKEE, WI

(2 Tanks)

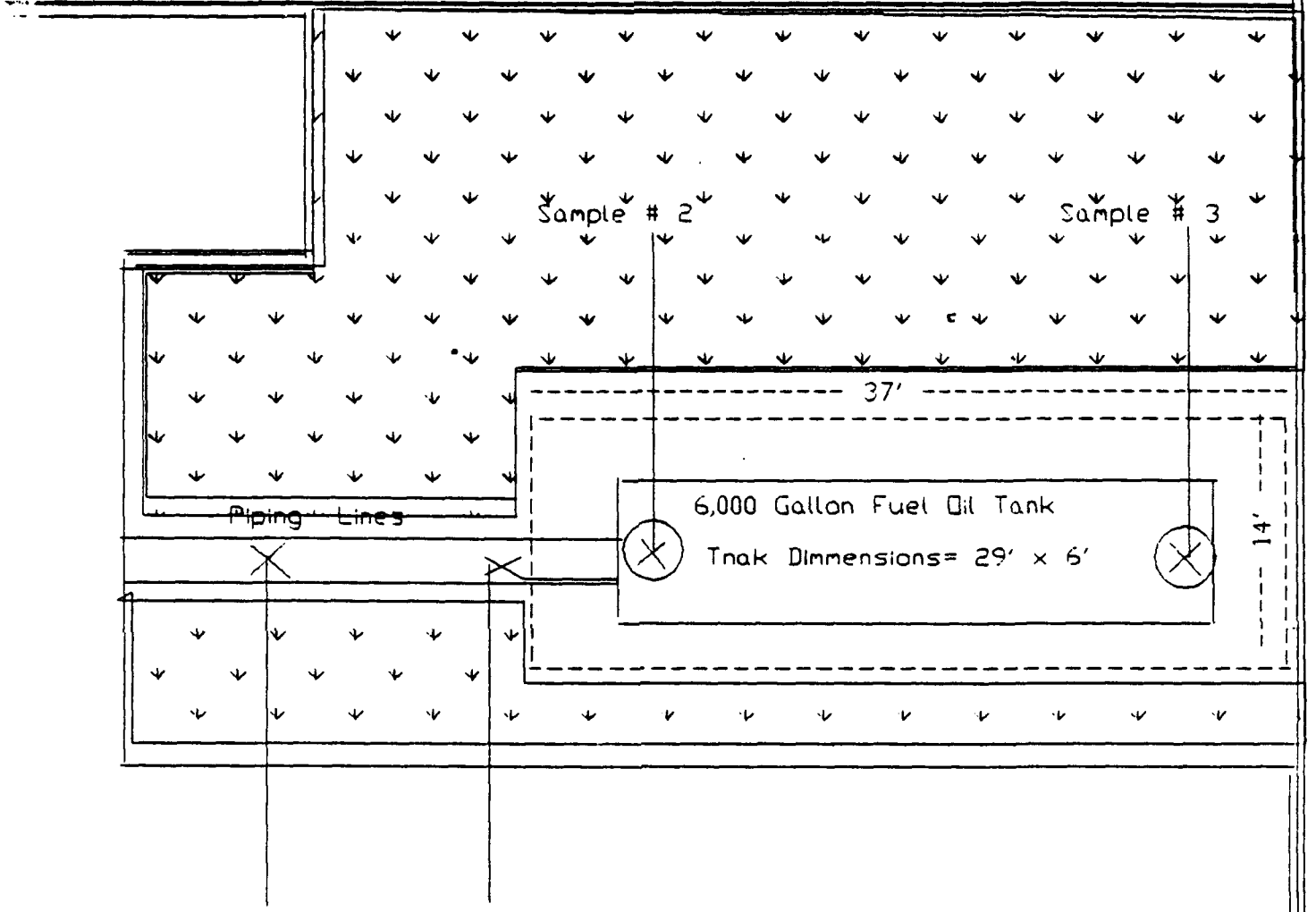
(A)

USARC, 619 W. Wisconsin Ave
Pewaukee, Wisconsin, Waukesha County

Date 10-30-91

Prepared By: McCutchin Crane Service

Map Not Drawn to Scale



USARC Building - Offices & Assembly Hall, Building #1, Pewaukee, Wisconsin

Wisconsin Street

Site: USARC - MVS Building

619 W Wisconsin Ave, Pewaukee, WI, Waukesha County

Prepared By: McCutchin Crane Service

Date 10-29-91

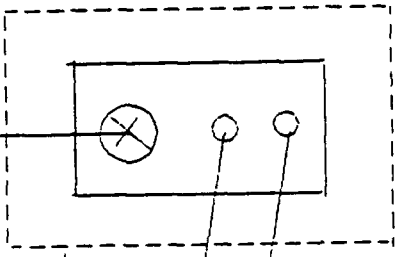
Scale: 1" = 5'

N

Excavation Hole Size = 8' x 10' x 8' Deep

Tank Size = 5'4" x 6' - 1,000 gallon Fuel Oil Tank

Tank was surrounded by asphalt, except for an opening enabling access to the tank.



Vent Line

Fill Pipe

USARC Pewaukee M V S Building #2

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc.
Watertown Division
602 Commerce Drive
P.O. Box 288
Watertown, WI 53094
Tel: (414) 261-1660
Fax: (414) 261-8120

91.3581.

CHAIN OF CUSTODY

Client	Project Name USARC - Penaukee.
Send Report to: McCUTCHIN CRANE SERVICE 727 W. Chapel Street Address Dodgeville, WI 53533 608-935-9411 Telephone #	Collected by: McCUTCHIN CRANE SERVICE 727 W. Chapel Street Dodgeville, WI 53533 608-935-9411

Collection Information								Parameters
Sample ID	Sampling Location	Date	Time	GRAB	COMP	Sample Type	No. of Container	TPH2
USARC Penaukee 1	Maps drawn			X		Soil	1	X
USARC Penaukee 2	"			X		Soil	1	X
USARC Penaukee 3	"			X		Soil	1	X
USARC Penaukee 4	"			X		Soil	1	X
USARC Penaukee 5	"			X		Soil	1	X

Remarks: _____

Relinquished by:	Date	Time	Received by:	Date	Time
			Jack D. Sonder	10/31	
Jack D. Sonder	11-1	8:00 AM	Mary Lydic	11/4	
Shipping Notes/Lab Comments			Received for NET Midwest by: Penni May	11/4	

Samples Field Filtered: ___ Yes ___ No
Seals Intact Upon Receipt: ___ Yes ___ No ___ N/A

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc.
Watertown Division
602 Commerce Drive
P.O. Box 288
Watertown, WI 53094
Tel: (414) 261-1660
Fax: (414) 261-3120

ANALYTICAL REPORT

Clinton McCutchin
McCUTCHIN CRANE SERVICE
424 W. Washington Street
Dodgeville, WI 53533

11/19/1991
Job No: 91.3581
Account No: 49210
Purchase Order:
Page 1

Job Description: USARC-Pewaukee

Date Taken: SEE BELOW

Date Received: 11/04/1991

35611	USARC-Pewaukee #1-USARC Pewaukee		
	Solids, Total	77.	%
	TPH NONAQUEOUS		
	Gasoline	<5.0	mg/kg
	Diesel Fuel	<5.0	mg/kg
35612	USARC-Pewaukee #2-USARC Pewaukee		
	Solids, Total	83.	%
	TPH NONAQUEOUS		
	Gasoline	<5.0	mg/kg
	Diesel Fuel	6.	mg/kg
35613	USARC-Pewaukee #3-USARC Pewaukee		
	Solids, Total	88.	%
	TPH NONAQUEOUS		
	Gasoline	<5.0	mg/kg
	Diesel Fuel	7.	mg/kg

David W. Havick, Manager
Watertown Division
Certification No. 128053530

NET NATIONAL ENVIRONMENTAL TESTING, INC.

NET Midwest, Inc.
Watertown Division
602 Commerce Drive
P.O. Box 288
Watertown, WI 53094
Tel: (414) 261-1660
Fax: (414) 261-8120

ANALYTICAL REPORT

Clinton McCutchin
McCUTCHIN CRANE SERVICE
424 W. Washington Street
Dodgeville, WI 53533

11/19/1991
Job No: 91.3581
Account No: 49210
Purchase Order:

Job Description: USARC-Pewaukee

Date Taken: SEE BELOW

Date Received: 11/04/1991

35614 USARC-Pewaukee #4-USARC Pewaukee

Solids, Total	90.	%
TPH NONAQUEOUS		
Gasoline	<5.0	mg/kg
Diesel Fuel	<5.0	mg/kg

35615 USARC-Pewaukee #5-USARC Pewaukee

Solids, Total	90.	%
TPH NONAQUEOUS		
Gasoline	<5.0	mg/kg
Diesel Fuel	<5.0	mg/kg

David W. Havick, Manager
Watertown Division
Certification No. 128053530

SITE ASSESSMENT INFORMATION

Site: USARC - Pennsylvania Date 10-29-91

Site Owner USARC. UST system owner/operator Same

Description of past and present property use Same

Legal Description of Site

Has There been any previous reported or non reported releases at thie site, include any system leaks or repairs made no

Results of previous Geotechnical Investigations no.

Have any tanks or underground systems been removed from this site previously to this job? If so, when & by whom? no

Tanks which are being removed at this time 1000 & 6000 gal Fuel oil

Are inventory records available no

Has this system had tank tightness test performed & are those results available? no

Has any associated piping been left in the ground, if so , give reason why , and has the piping been drained & capped All removed except over building gas to furnace room that was sucked clear & capped.

Will any underground tanks remain in place at this site no

& what is their status?

OBSERVATIONS: Size & Depth of excavation Bldg. #2 - 8' x 10' x 8' deep #1 - 12' x 39' x 10' deep Depth to Bedrock

Soil Types encountered Sand & Clay

Seasonal High Water table 14' Mottling & colorations of soil? At what depths?

Was there presence of free standing water in the excavation no

Depth to groundwater? Unknown Into which systems would drainage be likely to flow? City Sewers Were water samples taken x

Was any of the following encountered: Free product, stained soils, oders, dead vegeta or other evidence of contamination no

Tank & piping conditions Good

Possible leak locations Seams

If contamination was found who was notified & what procedures were taken?

McCutchin Crane Service Generator Waste ...

SITE USARC - Pentucket DATE 10-29-91

k ID#	Capacity	Dimensions	Age	Manufacturer	Construction	Contents & Quantity pumped from tanks	Status of tanks
# 1	6000	6'x30'			Horiz Std	1200 gal Fuel oil	MC cut.
# 2	1000	54"x6'			Horiz Steel	30 gal Fuel oil	MC cutter

e tanks purged on site? N/A. Liquid Co2
what method)
l liquids pumped from tanks (quantity of each type) 1230 gal

e tanks cleaned on site N/A
cedure)
l sludge (quantity of each type) cleaned from tanks 3 gal.

e will fill out: DISPOSITION OF WASTE PRODUCT, TANK SLUDGES, AND TANKS

re there pumps on this site & how were they disposed of none on site

ere was piping disposed of McCutchin

her Comments: Overall thing looked very good, never running all the time & in very good conditions.

[redacted] submitted by [redacted]

SOIL SAMPLE LOG

SITE NAME : USARC - Pewaukee

ADDRESS: 619 W Wisconsin Ave.

City
Township (Village) of: Pewaukee STATE WI ZIP CODE

COUNTY: Waukesha.

DATE 10-29 & 10-30 SAMPLES TAKEN BY Jack Gorden

Tank Size	Tank ID#	Sample#	Time Taken	Depth	Approx soil temp	Rel Mois. Content
1600	1	1	10:30 10-29	7'	50°	wet
6000	2	3	11:00 10-30	10'	50°	wet
6000	2	4	11:00 10-30	10'	50°	wet

Once samples were collected how were they stored Ice Chest

All sample locations are shown on site map identified by their ID#. Soil samples have be taken and handled in accordance with State of Wisconsin DILHR Closures, and soil samp techniques as described in September 1990 requirements & checklist.

Signature of 3rd party witness to sample collection : [redacted]

MC CUTCHIN CRANE SERVICE
424 WEST WASHINGTON STREET
DODGEVILLE, WISCONSIN 53533
608 935-9411 OR 608 935-2552

********** CERTIFICATE OF REASSURANCE**********

McCutchin Crane Service on this day has disposed of according to regulations 2 underground storage tanks which were hauled away from USARC, 619 West Wisconsin Ave, Pewaukee, Wisconsin Waukesha County.
These tanks have been opened, cleaned, and cut up to be sold as scrap iron. Any contents such as sludge which may have been cleaned from the tank is ultimately disposed of by Safety-Kleen Corp, who picks up from McCutchin on a quarterly basis. Safety-Kleen Corp then enters the product into a treatment process which is deemed suitable for the spent materials, which is in compliance with all applicable regulatory and permit requirements.

By acceptance of these tanks McCutchin Crane Service shall hold harmless USARC Pewaukee, US Dept. of Army, Fort McCoy Wisconsin, and any previous owners of the said tanks any type of liability claims arising from the storage, handling, cutting, and disposing of the tanks.
The tanks which were hauled away & disposed of were a 6,000 gal. heating fuel & a 1,000 gal heating fuel. A total of 1,230 gallons of heating fuel was pumped from the tanks and 3 gallons of fuel oil sludge was cleaned from the tanks.

McCutchin Crane Service Generator Waste EPA ID# WID9885759
McCutchin Crane Service Generator Waste IL ID# 9550498134
McCutchin Crane Service Hazardous Waste Hauler License number for Wisconsin ----------# 12372

DATE 10/30/91

Mary Ellen Lydic
McCutchin Crane Service

Wisconsin Department of Industry, Labor and Human Relations

Complete one form for each site closure.

CHECKLIST FOR UNDERGROUND TANK CLOSURE

RETURN COMPLETED CHECKLIST T
Safety & Buildings Division
Fire Prevention & Underground Storage Tank Section
P. O. Box 7969, Madison, WI 53707

A. IDENTIFICATION: (Please Print)

1. Installation Name: USARC
Installation Street Address: 619 W. Wisconsin Ave.
☐ City ☒ Village ☐ Town of: Pewaukee
State: WI Zip Code: 53072-4490 County: Waukesha

2. Owner Name: US Dept of Army
Owner Street Address: Bldg 3103
☐ City ☐ Village ☐ Town of: East McC...
State: WI Zip Code: 5[illegible]
County: Telephone No. (include area code): (608) 388-2924

3. Closure Company Name: HOUGHTON CRANE SERVICE
Company Telephone No. (include area code): ( ) 727 W. Chapel Street Dodgeville, WI 53533 608-935-9411
Closure Company Street Address, City, State, Zip Code: HOUGHTON CRANE SERVICE 727 W Chapel Street Dodgeville, WI 53533
Certified Remover Name: 608-935-9411
Remover Certification No.: T...

4. Name of Company Performing Tightness Assessment
Company Telephone No. (include area code): ( )
Assessment Company Street Address, City, State, Zip Code
Certified Assessor Name
Assessor Certification No.

Tank ID #	Closure	Temp. Closure	Closure In Place	Tank Capacity	Contents *	Closure Assessment
1.	☒	☐	☐	6000	04	☒ Y ☐ N
2.	☒	☐	☐	1000	04	☒ Y ☐ N
3.	☐	☐	☐			☐ Y ☐ N
4.	☐	☐	☐			☐ Y ☐ N
5.	☐	☐	☐			☐ Y ☐ N
6.	☐	☐	☐			☐ Y ☐ N

* Indicate which product by numeric code: 01-Diesel; 02-Leaded; 03-Unleaded; 04-Fuel Oil; 05-Gasohol; 06-Other; 09-Unknown; 10-Premix 11-Waste oil; 13-Chemical (indicate the chemical name(s) or numbers(s) _____ _____ _____; 14-Kerosene; 15-Aviation.

Notification was provided to the local authorities 15 days in advance of closure date. ☒ Y ☐ N ☐ NA
All local permits were obtained before beginning closure. Diggers Hotline ticket # 1667599 ☐ Y ☐ N ☐ NA

Check applicable box at right in response to all statements in Sections B - E.

	Remover Verified	Inspector Verified	NA
B. TEMPORARILY OUT OF SERVICE			
1. Product Removed			
a. Product lines drained into tank (or other container) and resulting liquid removed, AND	☐ Y ☐ N	☐	☐
b. All product removed to bottom of suction line, OR	☐ Y ☐ N	☐	☐
c. All product removed to within 1" of bottom.	☐ Y ☐ N	☐	☐
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	☐ Y ☒ N	☐	☐
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	☐ Y ☐ N	☐	☐
4. Dispensers/pumps left in place but locked and power disconnected.	☐ Y ☐ N	☐	☐
5. Vent lines left open.	☐ Y ☐ N	☐	☐
6. Written inspector approval of temporary closure obtained, which is effective until _____ (Date)	☐ Y ☐ N	☐	☐
7. Inventory form filed by owner indicating temporary closure.	☐ Y ☐ N	☐	☐
C. CLOSURE BY REMOVAL			
1. Product from piping drained into tank (or other container).			
2. Piping disconnected from tank and capped or removed.	☒ Y ☐ N	☒	☐
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☒ Y ☐ N	☒	☐
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☒ Y ☐ N	☒	☐
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed. **NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR.**	☒ Y ☐ N	☐	☐
7. Vent lines left connected until tanks purged.	☒ Y ☐ N	☒	☐
8. Tank openings temporarily plugged so vapors exit through vent.	☒ Y ☐ N	☒	☐
9. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F.	☒ Y ☐ N	☒	☐
10. Tank removed from excavation after **PURGING/INERTING**; placed on level ground and blocked to prevent movement.	☒ Y ☐ N	☐	☐

- CONTINUE ON NEXT PAGE -

C. CLOSURE BY REMOVAL (continued)

	Remover Verified	Inspector Verified	NA
12. Tank labeled in 2" high letters after removal but before being moved from site.	☑ Y ☐ N	☑	☐
NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.			
13. Tank vent hole (1/8 th " in uppermost part of tank) installed prior to moving the tank from site.	☑ Y ☐ N	☑	☐
14. Inventory form filed by owner with Safety and Buildings Division indicating closure by removal.	☐ Y ☑ N	☑	☐
15. Site security is provided while the excavation is open.	☐ Y ☐ N	☑	☐

D. CLOSURE IN PLACE

NOTE: CLOSURES IN PLACE ARE ONLY ALLOWED WITH THE PRIOR APPROVAL OF THE DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS.

1. Product from piping drained into tank (or other container).			
2. Piping disconnected from tank and capped or removed.	☐ Y ☐ N	☐	☑
3. All liquid and residue removed from tank using explosion proof pumps or hand pumps.	☐ Y ☐ N	☐	☑
4. All pump motors and suction hoses bonded to tank or otherwise grounded.	☐ Y ☐ N	☐	☑
5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed.	☐ Y ☐ N	☐	☑
NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR.			
6. Vent lines left connected until tanks purged.	☐ Y ☐ N	☐	☑
7. Tank openings temporarily plugged so vapors exit through vent.	☐ Y ☐ N	☐	☑
8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F.	☐ Y ☐ N	☐	☑
9. Openings cut in tank top if necessary to introduce inert material.	☐ Y ☐ N	☐	☑
10. Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank filled.	☐ Y ☐ N	☐	☑
11. Vent line disconnected or removed.	☐ Y ☐ N	☐	☑
12. Inventory form filed by owner with Safety and Buildings Division indicating closure in place.	☐ Y ☐ N	☐	☑

E. CLOSURE ASSESSMENTS

NOTE: DETERMINE IF A CLOSURE ASSESSMENT IS REQUIRED BY REFERRING TO ILHR 10.

1. Individual conducting the assessment has a closure assessment plan (written) which is used as the basis for their work on the site.	☑ Y ☐ N	☑	☐
2. Do points of obvious contamination exist?	☐ Y ☑ N	☑	☐
3. Are there strong odors in the soils?	☐ Y ☑ N	☑	☐
4. Was a field screening instrument used to pre-screen soil sample locations?	☑ Y ☐ N	☑	☐
5. Was a closure assessment omitted because of obvious contamination?	☐ Y ☑ N	☑	☐
6. Was the DNR notified of suspected or obvious contamination?	☐ Y ☑ N	☑	☐

Agency and office contacted: _____

7. Contamination suspected because of: ☐ Odor ☐ Soil Staining ☐ Free Product ☐ Sheen On Groundwater ☐ Field Instrument Test

F. METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

Educator Or Diffused Air Blower

Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground. Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.

Dry Ice

Dry ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over the greatest possible tank area. Dry ice evaporated before proceeding.

Inert Gas (CO/2 or N/2) **NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT**

Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent. Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.

Tank atmosphere monitored for flammable or combustible vapor levels.

Calibrate combustible gas indicator. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank. Readings of 10% or less of the lower flammable range (LEL) obtained before removing tank from ground.

G. NOTE SPECIFIC PROBLEMS OR NONCOMPLIANCE ISSUES BELOW

I. INSPECTOR INFORMATION

Inspector Name (print)	Inspector Signature	Inspector Certification No.
[illegible]	[illegible]	
72273	(414) 691-9223	10-30-91
FDID # For Location Where Inspection Performed	Inspector Telephone Number	Date Signed

OWNER

APPENDIX D

INTERVIEW AND TELECON NOTES

Office. Aerial photos can be obtained from Parks and Planning. Geological information can be obtained from the Southeastern Regional Planning Commission located in the Old Courthouse located on Main Street.

TELECON NOTE 4

Date: November 2, 1993

Interviewer: Pamela Lemme

Name: Eileen Campbell
Title: Assessor's Office Clerk
Affiliation: Town of Pewaukee Assessor
Phone No.: (414) 691-0820

Remarks: The project site is located in the Village of Pewaukee; therefore, you must contact the Village of Pewaukee to review tax assessor's information for this site.

TELECON NOTE 5

Date: November 2, 1993

Interviewer: John Tucker, Jr.

Name: Kathy Schulne
Title: Water Utilities Clerk
Affiliation: Village of Pewaukee Water Utilities
Phone No.: (414) 691-5660

Remarks: The Village of Pewaukee Water Utilities serves the Village of Pewaukee. The Village of Pewaukee has a population of approximately 5,550 people as of January 1993. There are four deep wells around the Village. She did not know the locations, depths or capacities of the wells. She stated that I should talk with Louis Thibault, who is on vacation this week, or Richard Leutsches. Mr. Leutsches is a supervisor and can be reached at (414) 691-5690. He works from 7:30 a.m. to 4:00 p.m. He takes lunch form 12:00 to 12:30.

There have been no reports of contamination. There were some high bacteria counts in October 1993. DNR required chlorination until the bacteria disappeared. Only complaint from customers was during chlorination. Phone calls complained about odor and the change in taste. The Village normally does not chlorinate.

She was not aware of any need for special sampling for hazardous waste concentrations. When asked if any wells had been shut down, she said they have but only for mechanical reasons.

TELECON NOTE 6

Date: November 2, 1993

Interviewer: Pamela Lemme

Name: Charles Babe
Title: Fire Inspector
Affiliation: Village of Pewaukee Fire Department
Phone No.: (414) 691-9223

Remarks: He was present when the two fuel oil tanks were removed from the project site. He said there was no evidence of contamination when the tanks were removed. He confirmed that the 1,000 gallon tank was located near the northeast corner of the maintenance building. The tanks had been tarred and were buried in sand. The company performing the work collected samples and took pictures.

As far as reports of any overflows, spills, or leaks, the Fire Department is not aware of any.

TELECON NOTE 7

Date: November 2, 1993

Interviewer: Pamela Lemme

Name: Sharon Schaver
Title:
Affiliation: Wisconsin Department of Natural Resources - Groundwater Division
Phone No.: (414) 961-5435

Remarks: She recommended obtaining a copy of the Waukesha Geological Survey Report, Circular #29, dated 1975, to obtain information about the geology in Waukesha County. To obtain information about private wells, well constructors reports can be reviewed at 4041 Richard Street. Contact Victoria Anderson to schedule an appointment to review the reports. Victoria Anderson can also provide information concerning LUST reports. Her phone number is (414) 961-2738. Additional information concerning groundwater

and private wells can be obtained from Irene Lipheld at the Wisconsin Department of Natural Resources in Madison, Wisconsin. Her number is (608) 262-7430. The phone number for the Wisconsin Geological Survey is (608) 262-1705.

TELECON NOTE 8

Date: November 2, 1993

Interviewer: Pamela Lemme

Name: Irene Lipheld
Title:
Affiliation: Department of Natural Resources
Phone No.: (608) 262-7430

Remarks: Information pertaining to a specific site can be obtained from well constructors reports. Wisconsin does not have a database which includes information about groundwater contamination in wells. Copies of reports generated from this office can be obtained from maps sales located at 3817 Mineral Point Road, Madison, Wisconsin between the hours of 8:00 a.m. and 4:30 p.m.

TELECON NOTE 9

Date: November 2, 1993

Interviewer: John Tucker

Name: Patricia Williams
Title: Office Manager
Affiliation: Lake Pewaukee Sanitary District
Phone No.: (414) 691-4485

Remarks: Lake Pewaukee Sanitary District only collects wastewater. Wastewater is transferred to the Brookville Wastewater Treatment Plant, which is owned by the City of Brookville, for treatment.

TELECON NOTE 10

Date: November 2, 1993

Interviewer: John Tucker

Name: Ms. Carol Plant
Title: Secretary of the District
Affiliation: Town of Pewaukee Water Utility and Sanitary District #3
Phone No.: (414) 691-0804

Remarks: Service area is all of the Township of Pewaukee except residents immediately around Lake Pewaukee. Serves approximately 2,000 customers. Most people have private wells. Residents around the Lake are served by Lake Pewaukee Sanitary District for sewers only.

Source of water is from seven deep wells ranging in depth from 380 feet to 1,200 feet. The closest well to the Army Reserve Center is about 1½ to 2 miles away at W-240, N-3065 Pewaukee Road (east of town near intersection of Line and "J" Road)

There has been no reports of groundwater contamination. They are under new guidelines by EPA for testing. At this time, they have not detected anything unusual.

No wells have been closed in the past. There have been no reports of foul smelling or foul tasting water from residents. There has been no analytical or circumstantial evidence that suggest any contamination.

There is no well field. Wells are scattered throughout the area.

The well closest to the Center has a capacity of 380 gpm.

Site is not in a well head protection area.

Village of Pewaukee serves the Army Reserve Center. Other in the area have individual private wells.

Have not heard any complaints from private well owners, but the Village probably would not receive the complaints. The County Health Department would receive the complaints.

TELECON NOTE 11

Date: November 3, 1993

Interviewer: Pamela Lemme

Name: Ron Piening
Title:
Affiliation: Wisconsin Bureau of Endangered Species - Fisheries Division
Phone No.: (414) 263-8614

Remarks: I informed him that I was trying to obtain information concerning endangered species in Waukesha County. He said that he could provide information pertaining to fisheries. Information about other animals or species would have to be obtained from Chuck Pils of the Wisconsin Bureau of Endangered Species in Madison, Wisconsin. I scheduled a visit for 1:00 p.m. at which time he provided me with information pertaining to endangered fish in the Pewaukee area.

TELECON NOTE 12

Date: November 3, 1993

Interviewer: Pamela Lemme

Name: Richard Leutsches
Title: Supervisor
Affiliation: Village of Pewaukee Water Utilities
Phone No.: (414) 691-5690

Remarks: He stated that the Village of Pewaukee obtains its water from four deep wells. The wells are located at Main Street by WCTC, 104 Hickory Street and near the intersection of Capital and High Streets. Samples from two of the wells revealed unsafe levels of chloroform. This has been corrected and there have been no problems since then. Additional information can be obtained from Louis Thibault.

TELECON NOTE 13

Date: November 3, 1993

Interviewer: Pamela Lemme

Name: Bob Davis
Title:
Affiliation: Waukesha Water and Sanitary District
Phone No.: (414) 521-5272

Remarks: The source of water for the City of Waukesha is ground water. The City has ten deep wells and the water supply system is interconnected. There have been no reports of contamination in any of the wells. There were high levels of iron in Well #7; however, it has been cleaned and is reopened. None of the wells have been permanently closed. Some have been temporarily closed for rehabilitation.

TELECON NOTE 14

Date: November 4, 1993

Interviewer: Pamela Lemme

Name: Becky Isenring
Title:
Affiliation: Bureau of Endangered Resources
Phone No.:

Remarks: In order to obtain information concerning endangered species, a request must be submitted in writing. A legal description and a map showing the area should be submitted with the request. The process takes about two to three weeks once the request has been received by her office. If you come in to fill out an application we will try to process it as quickly as possible. It can not be processed while you wait, so leave an address so the information can be sent.

TELECON NOTE 15

Date: November 16, 1993

Interviewer: Rakesh Aurora

Name: Bob Davis
Title:
Affiliation: Waukesha Water and Sanitary District - Water Utilities
Phone No.: (414) 521-5272

Remarks: The City of Waukesha maintains ten municipal water supply wells. Depths of the wells range from 1,800 feet to 2,200 feet. The wells are interconnected and serve approximately 56,000 to 57,000 people. The wells are located at:

1. East North Street
2. Baxter Street
3. Newhall Road
4. South Moreland Blvd.
5. East Avenue & Sunset Drive
6. Sunset Drive
7. Sunset Drive
8. Seylesville
9. Crestwood Drive
10. Wolf Road

TELECON NOTE 16

Date: November 16, 1993

Interviewer: Rakesh Aurora

Name: Jim Wilson
Title: Director of DPW
Affiliation: Village of Hartland - Department of Public Works
Phone No.: (414) 367-4880

Remarks: The Village of Hartland is supplied with municipal water from four wells approximately 150 feet deep. Approximately 7,000 people are served. The wells are interconnected. The wells are located at:

- the intersection of Lindenwood Drive and Manchester Court
- Progress Drive
- Sunny Slope Drive
- @ end of Penbrook Way

TELECON NOTE 17

Date: November 16, 1993

Interviewer: Rakesh Aurora

Name: Ms. Sue Friheit
Title:
Affiliation: Village of Sussex - Water Utility
Phone No.: (414) 246-5200

Remarks: The Village of Sussex has four deep water wells. They are interconnected. The locations and depths are as follows:

Location	Depth	Diameter
First Street	1,292 feet	12 inches
Maple Ave. (South of Main Street)	1,230 feet	17.25 inches
Lilac Drive	1,288 feet	12 inches
Donna Street	1,296 feet	12 inches

They also have one 1-million gallon storage standpipe and one ¼-million gallon storage standpipe.

TELECON NOTE 18

Date: November 16, 1993

Interviewer: Rakesh Aurora

Name: Carol
Title: Town Clerk
Affiliation: Merton Town
Phone No.: (414) 966-2125

Remarks: There are private wells on each person's property. The wells are not interconnected.

TELECON NOTE 19

Date: November 17, 1993

Interviewer: Rakesh Aurora

Name: Louis Thibault
Title: Superintendent
Affiliation: Village of Pewaukee Water and Sewer
Phone No.: (414) 691-5690

Remarks: The Village of Pewaukee maintains three municipal water supply wells. The average depth of the wells is approximately 1,300 feet. The wells serve approximately 5,200 people. The wells are located on Hickory Street, Capital Drive, and Main Street. The wells are interconnected.

TELECON NOTE 20

Date: November 18, 1993

Interviewer: Rakesh Aurora

Name: Michele Nelson
Title: Deputy Village Clerk
Affiliation: Merton Village
Phone No.: (414) 538-0820

Remarks: There are private wells for each home. There are approximately 600 homes in the Village. The total population for the Village is approximately 1,333. The average depth of the wells is 150 feet. The range of depths is 22 feet to 200 feet.

TELECON NOTE 21

Date: November 19, 1993

Interviewer: Pamela Lemme

Name: Chris
Title:
Affiliation: National Weather Bureau, Milwaukee
Phone No.: (414) 744-8000

Remarks: Average annual rainfall and rainfall equivalent in Milwaukee is 32.93 inches. (The rainfall equivalent is the amount of snow converted to rainfall inches.) The normal summer temperatures are: high - 78° F, low - 59° F. The normal winter temperatures are: high - 29° F, low - 15° F.

Summer includes the months of June, July, and August. The winter months include December, January, and February. The rainfall equivalent is the amount of snowfall calculated to an equivalent amount of rainfall.

TELECON NOTE 22

Date: November 23, 1993

Interviewer: Pamela Lemme

Name: Mr. Pat Brody
Title: Hazardous Waste Specialist
Affiliation: Wisconsin Department of Natural Resources, Bureau of Solid and Hazardous Waste Management
Phone No.: (414) 961-2717

Remarks: Wisconsin's hazardous waste generator classifications are similar to the federal classifications. A "Very Small Quantity Generator" is a facility that generates less than 100 kg, 220 lbs., or 25 gallons of hazardous wastes in any one month period. A "Small Quantity Generator" is a facility that generates less than 1,000 kg, 2,200 lbs. or 300 gallons of hazardous wastes in any one month.

APPENDIX E

DOCUMENT REVIEW REPORTS

DOCUMENT REVIEW REPORT #1

Document Reviewed by: Pamela Lemme
Date Reviewed: November 4, 1993

Remarks: The state leaking underground storage tank (LUST) list, the LUST Case Tracking System List, was reviewed on November 4, 1993. The list is prepared by the Wisconsin Department of Natural Resources and was dated 10/26/93. No reports of spills or LUSTs were found on the list for the subject site.

DOCUMENT REVIEW REPORT #2

Document Reviewed by: Pamela Lemme
Date Reviewed: November 4, 1993

Remarks: Well Constructors Reports, located at the Wisconsin Department of Natural Resources, 4041 Richard Street, Milwaukee, Wisconsin, were reviewed on November 4, 1993. The well constructors reports provided information pertaining to water supply wells developed throughout the state. The information included, but is not limited to, location of the well, depth of well, depth to water table, contractor performing the drilling, and the owner of the well. Reports dated as far back as 1936 were reviewed. There were no reports of wells within a 4-mile radius of the site closing due to contamination.

APPENDIX F

INTERVIEW REPORTS

INTERVIEW REPORT #1

Date: November 1, 1993

Interviewer: John Tucker and Pamela Lemme, PEER Consultants

Name: Mark Wisniewski, Colleen Reilly, Dave Jennings
Title: Facilities Manager, Environmental Manager, Environmental Manager, respectively.
Affiliation: 86th ARCOM

Remarks: The reserve center has been occupied since 1961. Mark Wisniewski has been employed at the facility since 1979, and has been the facility manager since April, 1993. Mr. John Jekel was the facility manager since the Reserve Center's inception until 1981. The 84th Division and the 961st Engineering Battalion, a unit of the 86th ARCOM, have both occupied the facility until April 1, 1993, when the 84th Division moved out. It is currently occupied only by the 961st Engineering Battalion.

The 961st Engineering Battalion's mission is construction. The unit has performed non-profit community work, such as construction of a soccer field and a playground for the public schools. There are approximately 145 personnel in the unit. There are five full-time employees and two part-time employees. There are no refueling operations on site. Vehicles are not washed at the site. The vehicles are taken to the facility in Milwaukee. Only touch-up painting, minor repairs, and routine maintenance are performed on site. Painting of the building is performed by private contractors. The facility uses municipal water and sewer systems. Electrical power is from Wisconsin Electric. The nearest school is approximately 1½ blocks east of the site at St. Mary's Church. The nearest day care center is approximately 1½ miles east at the Waukesha County Technical College. The facility manager has not observed any evidence of contaminated soils or damaged vegetation. The facilities heating was changed from oil to natural gas in 1986. The USTs which stored the heating oil were removed in October 1991. Trash is collected every Monday by Foyer Trash Collection. Used oil, antifreeze, and solvents are tested, collected, and recycled or disposed of by Safety Kleen. All other hazardous wastes or unknown materials are handled by DRMO.

INTERVIEW REPORT #2

Date: November 2, 1993

Interviewer: John Tucker and Pamela Lemme, PEER Consultants

Name: Mr. Frank Edwinson
Title: Public Health Sanitarian
Affiliation: Waukesha County Department of Environmental Resources

Remarks: The County Department of Environmental Resources samples local wells, at the request of the owner, for bacteria, chlorine, fluoride, iron, hardness, chloride, and nitrates. There have been no reports of contamination is groundwater wells in the vicinity of the project site. Reports or complaints about oil or other contaminants would be referred directly to the Wisconsin Department of Natural Resources.

INTERVIEW REPORT #3

Date: November 2, 1993

Interviewer: John Tucker and Pamela Lemme, PEER Consultants

Name: Mr. George Morris
Title: Manager
Affiliation: Waukesha County Department of Environmental Resources

Remarks: Waukesha County has begun to perform environmental assessments for County facilities. To date, there have been no reports of groundwater contamination in the area.

INTERVIEW REPORT #4

Date: November 1, 1993

Interviewer: John Tucker and Pamela Lemme, PEER Consultants

Name: Sergeant Thomas Charlier
Title: Motor Sergeant
Affiliation: 86th ARCOM

Remarks: Laura Sodemann was the former facility manager. He did not have a current Standard Operating Procedures for hazardous waste management . A copy of the SOP for the 84th Division was available. It is dated February 27,1990 and states that hazardous wastes will be handled by the 84th Division Headquarters located in Milwaukee. Approximately 40-50 gallons of waste oil is generated per month. Only routine maintenance is performed on site. Some solvents are on site for cleaning of wheel bearings, etc. The vehicle maintenance building had a grease pit; however, in 1979 it was cleaned and filled in with concrete.

APPENDIX G

PHOTOGRAPHS

PHOTO 1 - LOOKING NORTHWEST AT THE SOUTHEAST CORNER OF THE MAIN BUILDING

PHOTO 2 - LOOKING NORTHWEST AT THE SOUTH SIDE OF THE MAIN BUILDING

PHOTO 3 - LOOKING WEST AT THE EAST SIDE OF THE MAIN BUILDING

PHOTO 4 - LOOKING SOUTH AT THE NORTH SIDE OF
CLASSROOM WING OF THE MAIN BUILDING

PHOTO 5 - LOOKING SOUTHWEST AT THE NORTH SIDE OF THE DRILL ROOM OF THE MAIN BUILDING

PHOTO 6 - LOOKING WEST AT THE PARKING LOT BEHIND THE MAIN BUILDING

PHOTO 7 - LOOKING NORTHWEST AT THE MAINTENANCE FACILITY

PHOTO 8 - LOOKING SOUTHWEST AT THE 400-GALLON MOBILE STORAGE TANK AND THE FOUR 55-GALLON STORAGE DRUMS

PHOTO 9 - LOOKING SOUTHEAST AT THE 400-GALLON MOBILE STORAGE TANK AND THE FOUR 55-GALLON STORAGE DRUMS

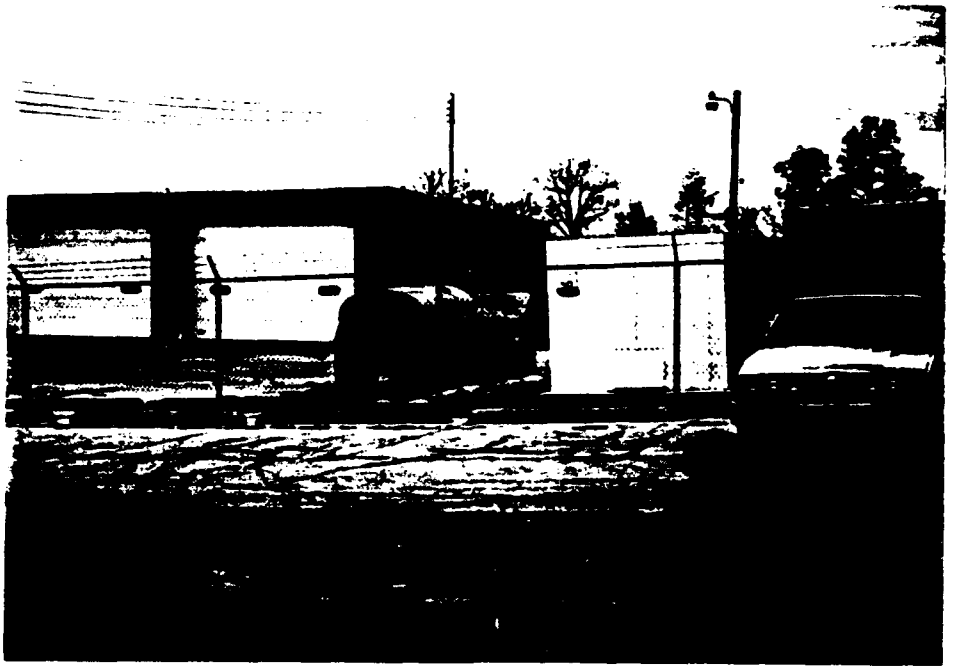


PHOTO 10 - LOOKING NORTH AT THE 400-GALLON MOBILE STORAGE TANK

APPENDIX H

ENDANGERED RESOURCES INFORMATION

WISCONSIN
DEPT. OF NATURAL RESOURCES
George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

101 South Webster Street
Box 7921
Madison, Wisconsin 53707
TELEPHONE 608-266-2621
TELEFAX 608-267-3579
TDD 608-267-6897

November 24, 1993

IN REPLY REFER TO: 1650

Ms. Pamala Lemme
PEER Consultants P. C.
12300 Twinbrook Pkwy
Rockville, MD 20852

SUBJECT: Endangered Resources Information Review (Log Number 93-434)

Dear Ms. Lemme:

The Bureau of Endangered Resources has reviewed the project area described in your request for information of 4 November 1993 for the environmental assessment for army reserve center near Pewaukee Lake.

Our Natural Heritage Inventory (NHI) data files contain the following rare species information for the project site located in Sections 5-9 in T7N R19E, Waukesha County. In addition to the actual project site, I am providing endangered resource information for an area within one mile of the project's location (within five miles for aquatic species.) I provide this information both so impacts to nearby endangered resources can be assessed and to assist in determining which rare species may occur in the project's impact area if appropriate habitat exists. If the described habitat types occur in the project's impact area, then species that occur nearby may be present there. The species information provided includes the location, date of the most recent observation, and other information useful in planning protection measures. Rare species occurring within or near the project site include:

Erimyzon sucetta (lake chubsucker), a State Special Concern fish, occurs in Pewaukee Lake
The observation date for this occurrence record is 1977. This species prefers lakes, oxbow lakes, sloughs of large rivers and quiet streams with dense vegetation over bottoms of sand, gravel, or rubble. Spawning occurs from late March through early July.

Special Concern (Watch) species are species about which some problem of abundance or distribution is suspected but not yet proved. The main purpose of this category is to focus attention on certain species before they become endangered or threatened.

In addition to the above information, our data files also contain historical records (generally, records that are 25 years old or older) of rare species known to occur within the vicinity of the project site. Unfortunately, the Bureau does not have more current survey information documenting the continued existence of this species in this area. I am including this older record as an indication of which species may still occur in the project area if appropriate habitat exists:

Gentiana alba (yellowish gentian), a plant listed as Threatened in Wisconsin, has been known to occur in In Wisconsin this species has been observed in wet, sandy railroad prairie: thin soil on open and wooded ridges and bluff-top; wooded ravine in clay soils and damp roadside on edge of woods. Blooming occurs from mid-August through early October.

Comprehensive endangered resource surveys have not been completed for the project area. As a result, our data files may be incomplete. The lack of additional known occurrences does not preclude the possibility that other endangered resources may be present.

The specific location of endangered resources is sensitive information that has been provided to you for the analysis and review of this project. Exact locations should not be released or reproduced in any publicly disseminated documents.

This letter is for informational purposes and only addresses endangered resource issues. This letter does not constitute Department of Natural Resources authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the Department.

Please contact Becky Isenring at (608) 264-8968 if you have any questions about this information.

Sincerely,

Charles M. Pils

Charles M. Pils
Director, Bureau of Endangered Resources

cc: Bruce Braun - EA/6
Jim Morrissey - SED
Frank Trcka - SED
Betty Les - ER/4

APPENDIX I

FIELD RECONNAISSANCE LOGBOOK

National Brand

COMP BOOK

PEWAUKEE ARC -

Preliminary Assessment

80 SHEETS • 10 x 7⅞ • COLLEGE & MARGIN • 43-461

0 73333 43461 3

DENNISON STATIONERY PRODUCTS CO.
FRAMINGHAM, MA 01701-0344
Made in USA

Army Reserve Center, Pewaukee Wisconsin
(ARCP)

11/01/93

Met with Mark Wisniewski (Facility Manager), Colleen Reilly (Environmental Manager) and Dave Jennings (Environmental Manager) to discuss past and present activities on site. PEER personnel present - Pamela Lemme and John Tucker.

1. Reserve Center has been in operation since 1961 under the command of Ft McCoy.
2. The mission has been construction
3. The unit is currently constructing a building in Pewaukee. The unit performs non-profit work.
4. There are approx. 145 people in the unit
5. There are 5 full time employees
6. No ~~R~~ refueling operations on-site
7. Trucks are ~~taken~~ to the maintenance facility on Silverspring Dr. in Milwaukee for washing down, major repairs etc.
8. Paint is stored in the paint storage room for touching up paint on vehicles and the building. Major painting of vehicles is performed at the maintenance facility. Major painting of the building is performed ~~by~~ Contract painters.

9. The building uses city water from Village of Pewaukee Sewage & Water
10. Power is obtained from Wisconsin Electric
11. Construction of the buildings was during 1959 and 1961. The building was dedicated 1961.
12. The facility is in Waukesha County
13. The closest school is about ½ a block east of the site - St. Mary's
14. ~~Heat~~ In the building was converted ~~to gas from oil~~ to gas prior to Dec. 88.
15. USTs were removed in Oct. 91.
16. The site has had no visits from regulatory agencies
17. Sgt. Charlier is the Motor Seargent for the facility. He is active duty.
18. Some asbestos sampling has been performed. No comprehensive survey
19. The two buildings total approx. 14,216 sf. The site is 9.9 acres.
20. An internal report was prepared by the 416th Engineering Command for the Environmental Compliance Assessment System. This report was available for review but can not be included in the report.
21. The fenced in area is ≈ 5 acres.

ARCP PA
11/01/93

Site observations:

1. Surface water flow across the site is to the west.
2. Small oil stains on the floor from pumps and other equipment.
3. There is a water buffalo (400 gallon mobile storage tank) and 4 - 55 gallon drums just inside the gate of the fenced area
4. The storage room contains paint and other solvents. A list or inventory of the materials is maintained on-site. MSDS are available for most products.
5. The dry storage shed contains tents and other similar equipment
6. The paint storage room is about 6' x 6', has block walls and a concrete floor.
7. An old grease pit was filled in 1979. It was located in the Maintenance Shop.
8. Trash is collected by Foyer on Mondays
9. Waste oils collected and recycled by Rock Oil
10. Antifreeze and solvents collected and tested by Safety Kleen.
11. other HW and unknowns are collected and tested by DRMO

12. Approx. 40-50 gals of waste oil is generated per month with routine maintenance of vehicles.

13. Oil in vehicles are not changed on any schedule. Samples of the oil are sent to the lab to determine if it needs to be changed.
14. The maintenance shop has gas heat. The old oil unit is still in place.
15. Water from the parking lot drains into a drainage ditch along the west side of the property.
16. There is a storm drain in front of the drill room ~~the~~ near where the 6,000 gallon UST used to be.
17. There are 3 pole-mounted transformers on-site. They are owned by the Power Co.

ARCP PA
11/3/93

Summary of findings in the ECAS Report

1. Need to prepare emissions inventory list : CFC list.
2. Should prepare a SPCP and investigate water pollution complaints
3. No findings assoc w/ Safe Drinking Water Act
4. RCRA Subtitle C: HWM Plan had not been done, no inventory of haz. wastes
5. RCRA Subtile D: needed verification of disposal facility and licensure of waste hauler.
6. RCRA Subtitle I: No plan for managing liquid waste petroleum products
7. Comp. Environ. Resp. Comp. : Liab. Act: only management practices found.
8. TSCA (PCB's): No findings
9. Fed. Insect, Fungicid: No findings
10. Historical Preservation: does not apply.

Army Reserve Center 619 W Wisconsin Ave

Pewaukee Phone No. 11/1/93

Village of Pewaukee

119 Hickory Park	Fire Dept Nonemergency	691-5686 ✓
	Village Hall	691-5660 ✓

Pewaukee Town

W240 N3065 Pewaukee	Bldg. Inspector	691-9107
	Fire Dept. Non-emergency	691-5686 X
Same as Bldg. Insp. *	Water Utility and Sanitary District	691-0804
*	Lake Pewaukee Sanitary District	691-4485
N 27 N2056 Pewaukee Drive *	Assessor	691-0920

Waukesha County

* Environmental Resources Dept	549-3012
325 E Broadway Waukesha (Land Division Perc Testing)	
Land Conservation Div.	548-7767
500 Riverview Av.	
Park & Planning	548-7790
500 Riverview Av	

Wisconsin State Gov't

Demographic Services (Madison)	(608) 266 1927
Natural Resources Dept	263-8500
2300 N Dr Martin Luther King Jr Dr	

11/2/93 ~8:40 am

Charles Bobe Pewaukee 691-9223

Fire Inspector

Was present at time of tank pull

Same contractor who did all for Army

Both tanks removed

No contamination

1,000 gal tank on NE corner

completed in sand and tarred

Company performing

Tanks pulled

Took pictures - Removed Site Assessor

No oversplills that the Fire Dept is aware of

11/2/93

/ ≈8:50 Ms Williams Village Clerk 691-5660
5,550 received less a month ago from State
automobile & voter registration
691-2100 School District Business Office
Think it was farmland prior

/ ≈8:55 Cathy Business Office 691-2100
School age population. K-12. in Pewaukee
1,653 students
1 elementary school
1 middle school
1 high school

/ ≈9:00 Erwin Kurth District Conservation 542-7767
Soil info from Land Conservation
Aerial - Park Planning
SE-Wisc Reg Planning Commission located Old Courthouse
Main Street

/ ≈9:03 ~~Ellen~~ Eileen Campbell 691-0820
Assessor's Office Clerk would need to call Village of
Pewaukee for info on site.

263-8614 Ron Bering (Fisheries)

961-5435 Sharon Schaver (Groundwater)

11/2/93 Sharon Schaver 3:40

A copy of Waukesha geological

W

Circular #29 1975

Well constructors reports Richard Street

Historical review LUST program

Local worker - 961-2738 Victoria Anderson

608 262-7430 Irene Liphold

608 - 263 1705 Wisconsin Geological Survey

1041 Richard Street Capitol Drive Petroleum

Vicki Anderson 961-2733 outside

Supervisor

Aff[illegible] Hydrogeologist Wisconsin

[illegible] other counties in Wisconsin

Irene Liphold 3:50

Looking for site specific information go to

well constructors reports

should not get copies of gw contamination

do not have a database

in Madison 3817 mineral Pt. Rd. 8-4:30

Water supply paper 1809-F

Today

11/3/93

9:25am Ron Piersing

Pewaukee Lake

Outlet of Pewaukee Lake to Fox River

Can come down to look at information

8614 dial

1:00 to review fishery info.

9:35 Richard Leutsches

Groundwater deep wells

Main street by WCTC

1004 Hickory St

Capitol & High Street

Did have two unsafe samples chloroform

Have not had any problems since

can call Lois Tulsch tomorrow

T7N R9E

Section 5

11/3/93

3:00 p.m. Bob Davis

Source is deep wells 10 interconnected

One with Iron #7 was cleaned up

#7 closed temp.

Some days for rehabilitation

11/4 7:55 Becky Isenring Bureau of Endangered Resources

Legal description

Requests are usually in writing process takes about 2-3 weeks

101 S. Webster JEF2 Bldg.

on 4th flor Look for Bureau of Endangered Resource

Look for Elizabeth or Becky

Can fill out an application and will try to process it as quickly as they can

4041 N. Richard St on Capitol & Richard St

94 E to 43N

exit east on Capitol Dr. dial 727

Estate LUST list was reviewed

Not on the list 10/26/93

LUST Case Tracking System DNR

DILHR

ARCP - Pewaukee

10/3 Mike Hahn - Southeastern Wisconsin Regional Planning Commission, provided documents for review.

Water Quality Man. Plan for Pewaukee Lake March 1984
Comm. Assist. Planning Report No. 58

No. 14 Floodland Management Plan for Village of Pewaukee. 2/78

Community Assistance Planning Report No. 9 (2nd Edition)
Floodland Information Report for the Pewaukee River
Village of Pewaukee, Waukesha Co. Wis
prepared by SWRPC March 85

- Pewaukee River originates in Section 26, T8N R19E
  flows South-westerly to Village of Pewaukee
  then SE to Fox River
- Fox River watershed = 414 sq mi
- Pewaukee River subwatershed = 38.35 sq mile drainage area
- Average annual total precipitation in the subwatershed based on the City of Waukesha data is 32.02 inches
  average annual snowfall is 42 inches
  assume 10" of meas. snowfall = 1 in of water
- Measured streamflow data was not available
- Hydrologic soil group for site B
  Moderate amounts of runoff because of moderate infiltration capacity, moderate permeability and good drainage

USARC - Pewaukee

11/3/93

(Mike Hahn, contd)

Site located in subbasin 10. Subbasin area and total area tributary to subbasin discharge point in square miles (8.33 - 8.33) Land segment type number for existing land use conditions and land segment type number for 2000 planned land use conditions (I - I)

I - rural-agriculture and open space

Length of Pewaukee River 10.6 miles

Pewaukee Lake Outlet - 0.1 mile

According to Spp. Floodland Zoning Map of the Village of Pewaukee dated 2/84 site is not located in ~~the~~ a flood plain (100 yr)

CAPR No 58

A water Quality Manage Plan for Pewaukee Lake 3/84

Lake is drained by the Pewaukee River which flows 4.4 miles to ~~the~~ Fox River

Area of Lake 2,446 acres

Area of Direct Drainage 14,817 acres

Volume 34,552 acre-ft

Residence Time 1.7 yrs.

Length - 4.5 miles Max Depth 45'

Width - 1.4 miles Mean Depth 15'

Length of Shoreline - 12.8 miles

Depth < 5ft - 15% >20' - 21.6%

5-20 63.4%

USARC Pewaukee

11/3/93

(Mike Hahn, cont'd)

Map 3 shows storm ~~sewer~~ discharge points SE : SW of site. GW flow in this area is to the South GW flow at inlet is away from Lake NE

Map 4 shows moderate infiltration rate for site

Table 4 pg. 17

Civil Division Area Within Direct Drainage Area

0.93 sq. miles

Maps 13 · 14 show site is down gradient from wildlife hab. ~~het~~ areas, wetlands woodlands in the drainage area

- Pewaukee Lake fishery is supported by local DNR stocking programs
- A public beach 0.5 mile long is located in the Village of Pewaukee
- Map 18 site is outside of shoreland floodplain zoning districts

USARC - Pewaukee

Well Constructors Reports - Reviewed at the Wisconsin DNR on Nov. 4, 1993

Geology
- Clay
- Gravel
- Limestone
- Shale

Report DV 036 8/6/92 T 7N, 21E, Sec 8
N37 W26870 Kapmier Dr

Stoney Clay, Sand	surface - 25ft	
Gravel	25 - 36	private well
Limestone	36 - 143	
Static Water Level	18' below surface	

Report EG 546 11/27/91
N41 W27122 [illegible] T7N R21E Sec 8

[illegible]	[illegible]	
Sand [illegible]	7 - [illegible]	private well
stoney clay	61 - 111	
hard pan	111 - 162	
limestone	162 - 229	
shale	229 - 259	
S.W.L.	110 ft	below surface

Report DC 976 8/2/90

N38, W26883 Glacier

T7N, R19E, Sec 8

Topsoil	0-2	
Clay	2-18	SWL-25'
Stoney clay	18-40	private well
Hardpan	40-51	
Limestone	51-163	

Report date 3/24/87 T7N R19E Sec 8

N36 W26893 Kopmeier Dr.

SWL - 22 ft private well

Report date 10/20/85

N37 W26883 Kopmeier

SWL 25 ft Private well

Report date 10/7/86

N37 26883 Kopmeier Dr private well

SWL 27 ft

Report date 11/20/84 private well

524 Spring St.

SWL 40 ft.

Report date 3/19/84 private well

N37 W26899 Kopmeier Dr

SWL 15 ft

Date 1/4/82

N37 W26805 Kopmeier Dr. SWL 27'

3/4/75 N38, W26876 Glacier Rd. SWL 36

2/5/36 — Park #2 Pewaukee 3 Lowe Ave SWL 40'

6/29/36 located in NE Quad of NE Quad SWL 10'

10/21/70 N38 W26775 Glacier Dr SWL 35'

12/14/59 Hwy J (113 W. Wisconsin Av) SWL 25'

12/8/64 N37 W26911 Kopmeier Dr SWL 6'

[illegible] 1751 [illegible] SWL 10'

[illegible] Hwy J [illegible] SWL 0

2/16/75 W254 S3664 Pewaukee Ct SWL 20'

3/22/62 116 W. Wisc. Ave SWL 14'

10/5/63 N39 W26660 SWL 7'

3/24/64 N38 W26541 Kopmeier Dr SWL 23'

4/14/61 N38 W26733 Hwy J SWL 12'

4/8/64 N37 W26549 Kopmeier Dr SWL 17'

7/20/54 NW 1/4 of sec 8 Hwy J SWL 10'

6/20/47 803 Prospect Ave SWL 43'

7/[illegible] N 1/4 NW 1/4 Sec 8 SWL 5'

3/10/44 1110 S 12th St (Pewaukee) SWL 3'

4/7/62	NW¼	SWL 5'	
7/27/72	W275 N960 Wildwood Dr.	SWL 115'	
11/1/63	~~W3~~ N37 W26685 Kopmeier	SWL 40'	
8/22/68	4488 Kopmeier Dr		32'
9/11/71	N40 W27428		100'
12/11/41	Hwy 164/Hwy 16 (SE¼, NW½)		10'
9/6/62	N38 W22681		12'
6/5/78	N41 W27363		65'
12/3/75	NW¼		12'
3/9/67	4467 Kopmeier Dr		35'
7/9/65	N37 W26719 Kopmeier Dr		55'
4/26/79	N37 W26725 Kopmeier Dr		35'
10/21/78	N37 W26875		40'